BENEFICIARY MONITORING ON IMPLEMENTATION OF DEVOLVED ROAD CONSTRUCTION PROJECTS IN KISUMU EAST SUB-COUNTY, KISUMU COUNTY, KENYA

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DECLARATION

This research project is my original work and has never been presented for the award of any degree in any other university.

Signature…… Date: 9th November 2021

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L50/37083/2020

This research project has been submitted for examination with my approval as the university Supervisor.

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DEDICATION

I dedicate this work to my mother, Mrs. Margaret Okidi Sule- it is a blessing to have a mother like you

To my wife, Hellen Auma Ochieng- The love of my life.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
GDP	Gross Domestic Product
KeNHA	Kenya National Highways Authority
KSC	Kenya State Corporation
KeRRA	Kenya Rural Roads Authority
KRB	Kenya Roads Board
KURA	Kenya Urban Roads Authority
SPSS	Statistical Packages for Social Scientists
SSN	Social Safety Nets

ABSTRACT

In Kenya, the potential for road improvements is enormous. The government has accelerated the building of road infrastructure, resulting in a safer transportation system. There is a dearth of strong beneficiary monitoring measures to assist the implementation of road development projects and to promote accountability. As a result, it is clear that contract documentation does not take into account the requirement of beneficiary monitoring for effective implementation of roads construction projects. This loophole has contributed to challenges in implementation of road projects including scope creep, cost overruns, design issues, delay in land acquisition, and resettlement of project affected persons, shifting of utilities, very weak contract management and enforcement environment. The purpose of this study was to examine how beneficiary monitoring influences the implementation of county government devolved road construction projects in Kisumu east sub county, Kisumu county. The study's objectives were; to examine the extent to which beneficiary identification, beneficiary needs assessment, beneficiary involvement, beneficiary feedback, and beneficiary satisfaction influences the implementation of County government devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya. The study was based on a descriptive survey. The study s target population is 1100. The study used Krejcie and Morgan table to arrive at sample size of 285. Probability sampling was conducted using simple random sampling, while non-probability sampling was conducted using purposive sampling techniques. Self-administered questionnaires was used to collect data.. To ensure validity and reliability of the research instruments, pilot testing was conducted using a sample of 29 respondents from Bondo Sub county,Siaya County. Cronbach s alpha at $\alpha = 0.80$ was attained as the reliability coefficient of the pre-tested instruments for respondents piloted. Descriptive statistics applied included frequencies, percentages, mean, and standard deviation. Inferential statistics used correlation and Analysis of variance (ANOVA) to test for the hypotheses. five hypotheses were tested at $\alpha=0.05$ level of significance and the results were: .H0: There is no significant relationship between Beneficiary identification and implementation of County government devolved road construction projects was rejected since $P=0.000<0.05$; There is no significant relationship between Beneficiary needs assessment and implementation of County government devolved road construction projects was rejected since $P=0.000<0.05$; There is no significant relationship between Beneficiary involvement and implementation of County government devolved road construction projects was rejected since $P=0.000<0.05$; There is no significant relationship between Beneficiary feedback and implementation of County government devolved road construction projects was rejected since $P=0.018<0.05$; There is no significant relationship between Beneficiary satisfaction and implementation of County government devolved road construction projects was rejected since $P=0.032<0.05$. It is concluded that beneficiary monitoring significantly influence and implementation of County government devolved road construction projects . It is recommended that Kisumu East Sub County monitoring officers develops and implements a beneficiary monitoring and visibility plan for enhancing sustainable implementation of County government devolved road construction projects in Kisumu East sub county, Kisumu County.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The implementation of road construction projects has socio-economic benefits on a global scale. You can now transport passengers, raw materials and semi-finished and finished products that are meant to be sold using this technology. Which in turn spurs economic growth, creating jobs and improving the standard of living. Transportation around the world cannot be trouble-free without an extensive road network of superior quality. More money is spent on roads than on education, health, and social services put together. The implementation of road construction projects, on the other hand, is fraught with a number of difficulties. Scope creep, cost overruns, design issues, land acquisition delays, relocation of project affected persons, utility relocation, and a very weak contract management and enforcement environment are just a few of them.

Over the years various governments worldwide have made significant strides in the implementation of roads projects despite the challenges. In Brazil, road constructions have been affected by extreme weather condition leading to flooding which has resulted in washing away of roads, bridges and culverts, this has adversely affected construction progress within Amazon region, and this has been noted as a waste of public resources (Rosa, Secco and Silva, 2021). According to Barbosa & Viln, (2017), the roads construction sector still has numerous challenges among them lack of skilled labor and low quality of work. A number of civil engineering firms in road construction are now using new road construction technology, such as molasses, to improve soil quality and reduce the plastic index of soil, which has resulted in significant cost savings ranging from 15% to 40% when compared to the traditional system of road construction, Koranne and Shirsavkar (2010). The construction projects in Brazil normally fail to meet original cost of the projects due to contract management, engineering and consulting, budgeting, planning and cost control, production, quality, environment and health (França & Haddad, 2018).

In a study conducted in India by Sumanth, Akshay & Saptarshi, (2017), revealed that respiratory problem was rampant among the road construction workers and this was brought about by lack of knowledge by workers to use protective gears and proposed policy change governing occupational hazard. Road construction is influenced by contractors who bribe their way to win tenders by manipulating political leaders and this has resulted to poor quality roads

(Shinde, Nilakhe, Pondkule, Karche, & Shendage, 2020). According to Priyanka, (2014), there is need to look at the problems of traditional road construction technology and bring in sustainable technologies like cold mix technology.

In Ghana, the labor based approach has been there since 1986.It has helped in increasing road construction capacity and creating rural employment opportunities. According to Adusei-Agyemang, (2016), road construction had an impact on living standards, however the stakeholders indicated that it cannot be sustainable to reduce poverty in Ghana since there is insufficient tools and ministry of roads payments delay as well. Ohemeng & chrales, (2021) established a study to explore success factors in achieving value for money in urban road construction, it revealed that poor contract administration, incompetent contractors, lack of extensive stakeholders engagement, lack of proper quality and time management, and went further to suggest that the government to institute mechanisms to assess the value for money. Road construction project certification delays has been brought about by delayed payment which usually leads to abandonment of the projects (Kumi, 2017).

The failure of road construction projects in Nigeria has been attributed to a lack of relevant data in engineering properties of the soil, which is critical in engineering planning, design, and construction. This has hindered engineering decision which are important in geotechnical perimeters (Habeeb, 2012). Awarding of contracts to inexperienced contractors and procurement manipulation has diluted road contraction projects (Kamanga, & Steyn, 2013). Poor road construction has resulted in poor quality of road, while some of the road project have been undertaken without inputs from professionals (Onyelowe,2015)

In Rwanda road construction disputes have been hindrance in successful completion and this has led to increase in project cost and at a times project suspension. Rwandan road construction transaction be done in an open environment (Safari, 2012). Despite the road construction workers being trained, accident due to lack of safety has been on the rise and this has affected high number of unskilled labor (David, 2020).

According to Kenya Roads Board (KRB) report, Kenya National Highways Authority is annually allocated approximately 30% of the total fund allocated to the ministry of roads.Road construction projects attract settlements leading to poor drainage and as result the soil erosion erode roads due to flooding (Matundura, 2002). The government should ensure that there is stakeholders involvement in planning and time management to increase credibility and acceptance which would eventually improve road quality (Meteg, 2020). Scarce resources and

cost overrun has been the main problem facing road construction projects (Nyandika, 2014). The government should formulate policies to safeguard and support team efforts in road construction projects (Waweru & Zipporah, 2018). Construction organization rarely take in account recruitment of highly skilled contractor and this has been linked to non-adherence to the cost estimates (Choge, 2014). There is need for the government to allocate adequate resource both financial and non-financial to ensure effective implementation of road projects (Kinaro & Erick, 2015). Mismanagement of project funds has led to poor performance of many road project, while in a number of occasions project stakeholders rarely have access to audit reports (Rotich, 2007). Beneficiary Monitoring has an impact on the execution of road construction projects. As a result, there is an urgent need for policy intervention to incorporate beneficiary monitoring into contract documentation during the implementation of road construction projects.

According to Hoogeveen & Taptué, (2020), In the SAP and other projects after project selection phase, beneficial monitoring plays a major role. It enables the implementing agency to monitor and respond to any changes in attitudes of beneficiaries, or to unexpected alterations necessary to complete the project properly. The level of persons involved in the project is helpful to monitor. With regard to assessment, qualitative approaches employed in this approach can be utilized to measure the success of the project in responding to the requirements of communities and to gauge their project satisfaction.

According to Okaka Suleiman who conducted a research on effectiveness of monitoring and evaluation of CDF projects in Kenya, in order to attain a development agenda in the local communities worldwide, the success of initiatives is crucial. Monitoring and project assessment is also acknowledged to be crucial to the achievement of the project objectives and success. Overall efficiency in project planning, administration and implementation is improved by the project monitors and assessment. Different projects may be undertaken in certain countries in order to transform the social, political and economic well-being of the public.

A study by Muchelule and Wanjala (2018) on influence of monitoring practices on projects performances on state corporations investigated if monitoring procedures, tools, and techniques, as well as their adoption, have an impact on Kenyan state businesses project performance. Monitoring approaches and their adoption, as well as monitoring plans and tools, are found to have a considerable impact on project performance, according to the study. Based on the findings, it can be concluded that state company professionals data and perceptions

reveal improved performance when monitoring best practices are implemented in their firms.

1.2 Statement of the Problem

The implementation of roads construction projects does play a significant role in socio economic development of the country by increasing Gross domestic product(GDP). The achievement of Kenya Vision 2030 is anchored on the development of its road network. Kenya Vision 2030 which is anchored on the following pillars; social, economic, and political (GoK 2007), aims at improving the quality of life Kenyans by creating employment and increasing per capita income thereby improving the living standards of the population. In addition, implementation of roads projects helps in achievement of the Big 4 Agenda. It leads to the creation of investment opportunities, thus creating an enabling environment to achieve Kenya Big 4 Agenda. However, according to the world bank report, the insufficient and dilapidated roads infrastructure in Africa is a hindrance to the achievement of full capacity development (World Bank,1994). Evidence suggest that implementation of county government devolved road construction projects are not being done according to the intended design and hence this affects the achievement of Vision 2030 and the big 4 Agenda. This leads to costs overruns and hence limits business opportunities leading to increased poverty levels. However, available evidence does suggest that beneficiary monitoring approaches helps mitigate implementation of road construction projects challenges.

Unsurprisingly, even with money allocated by local government to develop Kisumu sub-county roads, research suggests that a larger percentage is still awful and impeding economic activity. Therefore, it is evident that Kisumu east sub county administration has not prioritized beneficiary monitoring in planning and implementation of its roads construction network. There is need by the Kisumu east sub county administration to adopt beneficiary monitoring approaches by ensuring; beneficiary identification, beneficiary needs assessment, beneficiary involvement, beneficiary feedback and beneficiary satisfaction is adequately in the contract documentation for faster growth of the sub county.

1.3 Purpose of the Study

The purpose of the study was to examine how beneficiary monitoring influences the implementation of devolved road construction projects in Kisumu East Sub County, Kisumu County, Kenya.

1.4 Objectives of the study

The study was guided by the following 5 objectives;

1. To establish the extent to which beneficiary identification influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya.
2. To assess the extent to which beneficiary needs assessment influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya.
3. To determine the extent to which beneficiary involvement influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya.
4. To determine the extent to which beneficiary feedback influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya.
5. To establish the extent to which beneficiary satisfaction influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya.

1.5 Research questions

The study sought and answered the following questions:

1. To what extent does beneficiary identification influence the implementation of devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya?
2. To what extent does beneficiary needs assessment influence the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya?
3. In what ways does beneficiary involvement influence the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya?
4. To what extent does Beneficiary feedback influence the implementation of county government devolved road construction projects in Kisumu east sub county, Kisumu county Kenya?
5. How does beneficiary satisfaction influence the implementation of devolved construction projects in Kisumu East Sub County, Kisumu County, Kenya?

1.6 Research Hypotheses

The following null hypotheses were tested:

1. There is no statistically significant relationship between Beneficiary identification and implementation of devolved road construction projects in Kisumu east sub County, Kisumu county, Kenya
2. There is no statistically significant relationship between Beneficiary Needs Assessment and the implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya.
3. There is no statistically significant relationship between Beneficiary Involvement and the implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya.
4. There is no statistically significant relationship between Beneficiary Feedback and implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya
5. There is no statistically significant relationship between Beneficiary Satisfaction and the implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya.

1.7 Significance of the Study

The results of the study provided a source of knowledge to project management practitioners, students and experts in expanding their knowledge on beneficiary monitoring. In addition, it will improve in beneficiary and ultimately management of projects to enhance performance.

The recommendation of this study influence the government of Kenya and County governments to formulate policies and strategies on effective implementation of roads construction projects. Moreover, they will design appropriate beneficiary monitoring systems to help in implementation of road construction projects. The study aided in addressing challenges hindering the effective implementation of road construction projects This enabled government to have a competitive edge and to be able to compete globally for sustainable development and for the realization of vision 2030 and for the achievement of Big 4 Agenda.

1.8 Assumptions of the study

The study was based on the following key assumptions;

The study assumed that the County government routinely monitor beneficiaries of the

respective roads construction projects through feedback. It also assumed that the implementation of road projects does have a positive impact and hence is a critical issue for the county government. The data collected by the data collection tools from a population sample was assumed to reflect the views of the entire population.

1.9 Limitations of the Study

The study adopted descriptive design and hence due to main drawback for this particular design, the study could not test or verify the research problem statistically. The target population for the study might have not reflected the views of the entire population of Kisumu Sub County. The study adopted questionnaire as the data collection tool and the researcher might have got dishonest answers from respondents. Lastly, the study adopted both descriptive and inferential statistic in analysis and this had the potential of the entire dataset not fully measured and hence the researcher might not be sure about the results.

1.10 Delimitations of the Study

Kisumu County has 7 number sub counties. Therefore, the study will be delimited to Kisumu east Sub County. Monitoring in broader aspect encompasses; compliance monitoring, beneficiary monitoring, process monitoring, context monitoring and results based monitoring. However, the study will be delimited to beneficiary monitoring. Lastly, the study will be delimited to implementation of road construction projects in Kisumu east Sub County.

1.11 Definition of Significant Terms

Beneficiary Monitoring: It is a systematic investigation to monitor beneficiaries through beneficiary identification, beneficiary needs assessment, beneficiary involvement, beneficiary feedback and beneficiary satisfaction.

Beneficiary Identification: This is the selection of the people or group of people through focus groups meetings on cross cutting issues, technical personnel engagement, employment of locals, on the job trainings/internship programs, road condition survey reports and local administration engagement, in which the project will have a positive impact.

Beneficiary Needs Assessment: This is the identification of the various reasons a particular project should be undertaken in a particular area. It assesses the accessibility of the area to the locals,

the reduction in crime rate, the establishment of market centers, the establishment of business opportunities, establishment of hospitals and the corporate social responsibility (CSR) projects.

Beneficiary Involvement: This refers to the participation of the local people or community in a project through employment of local people in projects, technical personnel involvement, accountability of expenditures, identification of achievement milestones and stakeholder s engagement. It also includes the expected outcome and impact of the project.

Beneficiary Feedback: This refers to the different ways the relevant stakeholders and community members give their opinions relating to the project s activities through public meetings to discuss the projects, progress reports of the projects and focus groups meetings.

Beneficiary Satisfaction: This refers to how well the project meets the needs of the relevant stakeholders and those of the local people. It involves knowledge on project inputs, community/public opinion about the projects, adequate road network to community, substantial completion reports, handing over Reports and improvement of living standards of locals.

1.12 Organization of the Study

This research study is broken down into the following chapters, which include:

An introduction section, Chapter one, explains the study s history, problem description and aims as well as the study s importance and limitations. Limitations, definitions of words, and study organization.

The second chapter contains a survey of the literature, as well as an introduction of concepts and research relevant to the workplace. Research gaps were identified and a conceptual framework was developed to guide the study. It surveyed the literature on related issues,

conducted a theoretical review as well as an empirical evaluation.

Chapter Three: It is in this chapter that you will find a description of how you plan to conduct your research. In it, you ll learn about the research design, study population, sample methods, data sources, and data collection tools. Testing and pilot studies are just a few of the steps in the process.

Chapter Four: This chapter presents the study s findings. To consolidate and condense the conclusions, the collected data is evaluated. This section (results) determines the value of the study and must be presented in a straightforward manner, guided by the document s first chapter s objectives.

Chapter Five: It is in this chapter that the researcher explains the findings from earlier chapters and their consequences. Summary, conclusion, and recommendations are included along with future research areas.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

There are a number of topics that will be explored in this section; implementation of county government devolved road construction projects, beneficiary monitoring, , beneficiary identification and implementation of devolved road construction projects, beneficiary needs assessment and implementation of devolved road construction projects, beneficiary involvement and implementation of devolved road construction projects, beneficiary feedback and implementation of devolved road construction projects, beneficiary satisfaction and implementation of devolved road construction projects. The section also explored on theoretical frameworks, presented a conceptual framework, summary of literature and gaps in literature reviewed.

2.2 Implementation of County Government Devolved Road construction Projects

A research by Wanjala, Iravo, Odhiambo, & Shalle, (2017) aimed to assess the project s impact on the performance of Kenyan state-owned enterprises. This led them to analyze whether or not project performance was affected by monitoring methodologies used by the Kenyan State Corporation (KSC). They chose a basic random sampling procedure. According to the researchers, 65 state-owned firms were used in the study. To obtain data, open-ended and closed-ended questions were utilized. The data was analyzed and interpreted using descriptive and inferential statistics. Variable relationships were determined via personal correlations and t-test correlations in their study, the researchers concluded that monitoring technology had an impact on the functioning of Kenya s state-owned enterprises. According to the study, state businesses rely heavily on anticipating project activities, project mapping, and participative approaches to achieve their project goals and targets. Additionally, it was recommended that state companies develop benchmarks for what they should do and how to accomplish their goals at the end of the study. In order to do this, the Commission proposed that state-owned enterprises use the projection when assessing the sorts and possibilities of initiatives to be undertaken (Wanjala, Iravo, Odhiambo, & Shalle, 2017).

As Kananura, Ekirapa-Kiracho, Paina, and Bumboat (2017), have shown, participatory monitoring and assessment has a significant impact on decision-making. A Participatory M&E technique was then used to determine how it affected the decision-making of stakeholders in eastern Uganda. A mother and infant health project in three East Ugandan districts used a

variety of M&E methodologies. Interviews with key informants, formal surveys, and supporting oversight and participation procedures, including participatory impact analysis, comprised the qualitative and quantitative M&E methodologies. To identify major local challenges and possible local solutions, and to inform following efforts, they found that M&E approaches were effective during the design phase. They found that researchers and decision-makers can better understand and adapt evidence to contexts by using a diversity of information sources and perspectives. When districts have access to cross-cutting information and venues for exchange that engage stakeholders from many sectors it can help with the successful implementation of complex development efforts (Kananura et al., 2017).

According to Kisengese & Rachael s (2012) research, despite huge investments and efforts made by a wide range of agricultural players to grow this sector, there are still impediments to project implementation. Main objectives were to determine the impact of economic factors on agricultural project execution, to determine how land ownership and use influence agricultural project implementation in Kilifi County, and to determine the impact of gender issues on agricultural project implementation in Kilifi County. Since it s reliable and produces measurable statistical data, the descriptive survey design method was chosen in this investigation. In addition, important informants in the agriculture industry were polled using standardized questionnaires and conducted interviews with farmers. A pre-test study was conducted before the questionnaires were administered. A stratified random selection, on the other hand, was employed to select a sample population of 112 farmers. When determining the relationship between independent and dependent variables, the Pearson Chi-square was used. When it comes to agricultural projects, the interplay between economic considerations, land, gender was explored. In addition to economic and land-related considerations, the study found that gender concerns also influenced the implementation of agricultural projects Agricultural operations in the county could only succeed if economics and gender issues were taken into account during the planning stages. To ensure that agricultural initiatives be successfully implemented, these factors are crucial.

The iterative beneficiary surveillance (IBM) for donor projects was reviewed in Mali by (Hoogeveen & Taptue ,2020). The various implementing limitations of IBM were identified. The researchers have noted that the iterative feedback approach by IBM is relatively straightforward. It is essential to establish a strong relationship with a project team, and nobody wants negative feedback, although that is exactly what an iterative feedback system does frequently. It was also noted that integrating an iterative follow-up approach at the project

design stage has the benefit of identifying opportunities for early monitoring by beneficiaries. This study relates to the fact that most construction projects are financed by donors so that a proper recipient surveillance mechanism is necessary to emphasize not only the positive effects but also the negative impacts of projects. The report recommended that familiarizing with project processes and personnel would facilitate the design of an iterative loop and that, as financial audits are outsourced, outsourcing the approach is likely a challenge. They also recommend an intermediate approach to the design and reporting of tools and reporting, while outsourcing data collection can occur (Hoogueveen & Taptué, 2020) and staff familiar with the household surveying, analyzing and dialog with the customer.

According to Kissi et al. (2019), project monitoring and assessment techniques have a significant impact on the success of building projects. Ghanaian building projects were evaluated for their success using M&E techniques. Structured questionnaires were used to survey Ghanaian project managers. According to PLS-SEM, project M&E constructions have an impact on project success. M&E procedures exhibited a statistically positive correlation with the success criteria of the construction project, according to the investigators findings. Aside from this, they observed that M&E and health, safety, and project scope were very strongly linked, implying that these two primary structures should be given essential consideration in developing countries for project success. Outcomes were also critical. Finally, they stated that results of the study would be valuable in identifying relevant, project-effective M&E methods. This would increase productivity and accelerate the project s success (Kissi, Agyekum, Baiden, & Tannor, 2019).

Monitoring and assessment were explored in the construction business by Callistus & Clinton (2018) in their research paper. So that they could show how important monitoring and evaluation are during the project delivery cycle, the scientists carried out a full desk assessment of all documents and records. As a result of the review, the only project activity that continued from the project s conception to its completion and conclusion was monitoring and evaluation. Assumptions were made about how much of the project s scope would be necessary to monitor and analyze its impact on beneficiaries and end users once it was implemented, but not all of it. It was shown that beneficiary monitoring could increase the efficiency of construction projects. It was found that effective monitoring and evaluation plays a significant role in project implementation, taking into account the perspective of those implementing/working on the project, providing adequate resources, increasing technical capacity, and creating a project environment conducive to success (Callistus & Clinton, 2018).

2.3 Beneficiary Monitoring

Beneficiary monitoring is operationally defined in this study as a systematic investigation to monitor beneficiaries through beneficiary identification, beneficiary needs assessment, beneficiary involvement, beneficiary feedback and beneficiary satisfaction. The IFS/NS defines beneficiary monitoring as the systems investigation to monitor the views of the beneficiaries of an operation (IFRC, 2011). It is intended to provide managers with information on the recipient s reactions to the outcome of an operation and to show that progress is being made toward the operation. However positive, it should be noted that the reaction of the beneficiaries is only an improved proxy indicator of a situation to be created by an operation.

The focus of benefit monitoring is on access to and satisfaction with benefits by directly seeking feedback from females, men and kids that are the project target group. The transition from input to output is a matter of concern. It also gives managers an indication of progress in achieving the results of an operation. It employs a range of techniques and methods of data collection (IFRC, 2011).

According to the logic of beneficiary monitoring, if the members of a target group do not have access to operations outputs, they will not benefit, and if they do have access to operations outputs but choose not to use the results, they will not benefit at all (WFP). The beneficiary monitoring program tries to measure progress in the transition from service supply to benefits under the logical framework matrix (outcomes). Therefore, "leading indicators" are the indicators used in recipient monitoring. In the logical framework at outcome level, Beneficial Monitoring Indicators should be included. In this study, the leading indicators of beneficiary monitoring are five sub-independent variables. These key indicators include recipient identification, recipient requirements, recipient involvement, recipients feedback and recipient satisfaction (Hoogeveen & Taptué, 2020).

Beneficiary monitoring requires a systematic study of recipient responses to operations outputs and activities and the different groups involved (men, women, boys, girls and other vulnerable groups). In the best case scenario, participatory qualitative methods are clearly identified with the nature of the surveillance investigations carried out by beneficiaries. Beneficial surveillance involves primary data collection almost always. Follow-ups are carried out in line with recipient reactions. Management can continue to implement the operation according to the plan. If problems are identified, a detailed investigation may be required for the management of the operation to be established (Hoogeveen & Taptué, 2020).

2.4 Beneficiary Identification and Implementation of Devolved Road Construction Projects

Beneficiary identification in this study is the process of selecting persons or groups of people through focus group meetings, on cross cutting issues, technical staff involvement and hiring of locals, on-the-job-trainings, and local administration engagement. Haider & Mahamud, (2017) were worried about the evidence beneficiary selection and its effects on allowance utilization in Bangladesh s social safety net programs (SSN). It was for this reason that they set out to examine how beneficiary selection influences allowance consumption in social safety programs by employing field-level primary data collected from the beneficiaries themselves. A cross-sectional research strategy was utilized, with simple random sampling to pick 188 respondents, covering 122 "old age benefits" and 66 "widow allowances". Interview questions included socioeconomic information such as income and spending. Statistical methods were utilized to analyze quantitative data, including descriptive and inferential statistics. It is not always the case that SSN transfers are assigned to the poor and vulnerable individuals who deserve them. According to the study s findings, over half of the SSN recipients did not match any of the program s priority requirements. People are still in a vulnerable position even after obtaining support from the SSN, as 60 percent of the money they receive is spent on food. By enabling the correct people s access to SSN programs and boosting SSN allowance levels to combat poverty, the researchers say, allowance amounts might be increased, beneficiary selection methods changed, and monitoring increased.

(Haider & Mahamud ,2017) expressed concern regarding the choice of recipients of evidence and their implications for the use of social security network (SSN) allowances in Bangladesh. Therefore, the researchers tried to analyze the recipient selection process and the influence it has on the use of primary field data in social security programmes. Therefore, it has been designed across sections, where a total of 188 participants, including 122 old age allowances and sixty-six allowances for the widow, are chosen with a simple random sampler method. On the quantitative side, we used descriptive and inferential statistics to assess the data collected through an interview schedule that covered socio-economic characteristics such as household income, expenditures, family size, age and land ownership. A recent study demonstrated that SSN transfers to the poor and vulnerable are not always given to those who need them. Mehr als a hundred of the SSN recipients did not match at least one of the program s priority requirements. Furthermore, approximately 60 percent of the allowances received are spent on food, indicating that people are still at risk even after being protected by SSN. By

making it easier for eligible persons to enter social security programs and increasing their SSN allowance levels, researchers believe that they would be able to contribute to the promotion of human rights and social protection in Bangladesh.

Hossain, Kaiser, & Islam, (2018), did a study which aimed to explore the extent of targeting errors of the leading public SSNPs of Bangladesh to find out the determinants of these errors. The research project "Targeting Efficiency and Productive Results of the Social Safety Net Program in Rural Bangladesh: An Evaluation" supported by the GARE Ministry of Education program, GoB, collected data from 3322 households from 130 rural sites. They were collected. For achievement of the goals, they used a number of descriptive and inferential techniques including a logistic regression model. The researchers found that the inclusion error for the widowed women, VGD and RMP beneficiaries was high. They also found, mainly because of the income ceiling for the allowance programs and for women leadership for the other two programmes, that the highest amount of errors occurred. They found that the error of inclusion appeared to vary for various SSNPs for various criteria. Therefore, it was recommended that the SSNP budget be increased in order to cover all needy families, and an all-out effort is needed to eradicate poverty.

The targeting methods for identifying beneficiary households were of concern to Skoufias, Davis, & Behrman, (1999), It was determined that PROGRESA s beneficiary household selection procedure went through several stages (Education, Health, and Nutrition Program). According to the assessment, three major variables were considered: a social purpose, an array of economic-political-social restrictions, as well as an array of instruments accessible to attain these objectives. The assessment includes a consumption-based test to determine the locations of poor households and then compare them to PROGRESA s selection of poor households. However, PROGRESA is more accurate at detecting extremely poor homes than moderately impoverished ones, according to the researchers. Their research shows the second most effective approach for "perfect" consumer centered targeting is PROGRESA. PROGRESA s selection of beneficiary homes could be enhanced, they observed. This could be accomplished by using the method of relative operating curves, which suggests some improvements in the variables used by the discriminant analysis methods of PROGRESA for the prediction of household poverty.

Conning & Kevane, (2001) have been working on community-based social security network targeting mechanisms. Several case studies and community participation theory in the selection

and distribution of benefits to social safety networks have been interpreted. The data was collected from the selected wards where some NGOs provided food assistance and aid. The researcher adopted qualitative approach in collecting and analyzing data. They suggested that the benefits of using local information and social capital might be drastically eroded through costly rental searches and the potential to enhance targets by incorporating local deprivation notions should be affected by local elites potential program capturing and the potential for local preferences not to be pro-poor. In response to declines in political support, national funding and evaluation criteria, they suggested that the performance of local communities would be compromised by unexpected strategic targeting. As a result, Conning & Kevane, (2001) concluded that review is important to target local communities and project performance might be affected if beneficial identification/selection is not properly done. The proposed study targets local communities. In addition to finding better information or proxy indicators, they also recommended that researchers build a more effective social security network that provides valid and long-lasting possibilities for participation as the poor can establish and demand reclamation when necessary.

Similarly, Karuti et al. (2015) evaluated the impact of beneficiary participation in project monitoring and assessment on the project s long-term viability and sustainability. If beneficiary involvement in M&E activities leads to good monitoring and evaluation, then community-based water projects have a better chance at surviving. Researches used a descriptive survey design and a sample that included both water project participants and management team members in their research. The Kiabaibate-Nchura water project s participants and management will be randomly selected for sampling. In order to collect data, the researcher employed structured and open-ended questionnaires, which he delivered as specified. According to survey results in tables, the data was examined using descriptive statistics such as frequency distributions and measures of central tendencies as well as Likert scale analyses. As a result of beneficiaries low involvement in project activities, which are, tragically, the basic building blocks of the project, monitoring and evaluation of the project suffered the most. Research reveals that it s important to find out why beneficiaries aren t participating in project activities, despite the fact that they say it s beneficial to them. To promote transparency and accountability, the management should provide financial reports to the beneficiaries on a regular basis.

2.5 Beneficiary Needs Assessment and Implementation of Devolved Road Construction Projects

Beneficiary Needs Assessment in this study is operationally defined as identifying the reasons a given project should be performed in a particular area. If you re interested in how the distribution of food goods for undernutrition prevention works, check out McLellan (2014) study. Ready for Usage Foods (RUF) and its current indication for use were evaluated, as well as numerous publications and data supporting the use of RUF in the prevention of undernutrition. This concerns the study proposed in that the needs of the stakeholders and the beneficiary as general are being assessed for building projects. In this review, McLellan advocates for humanitarian actors and donor institutions to strongly support and empower sustainable interventions in the import and distribution of foreign solutions that are packaged in advance. He also recommends sustainable interventions to enable beneficiaries to progress rather than stagnation and empowerment and not to rely (McLellan, 2014).

Leigh, Watkins, Platt, & Kaufman, (2000), have reviewed alternative needs assessment models in order to choose the right model for an agency. The authors pointed out that planners feel that assessment of needs is intuitive. The authors reiterated that planners accurately recognize the importance of a data-based foundation and consider that the data generated by requirement evaluation justify organizational planning and accountability. Leigh et al. (2000) also considers that needs assessments are useful for project management to obtain and allocate resources. The need assessments according to Leigh et. al (2000). ensure that resources (inputs) and techniques (processes) produce useful results that demonstrate value-added. The study proposed examines how recipient needs can influence the performance of construction projects. The study will address the needs of the recipients and illustrate how the processes involved meet these needs while implementing projects. It also examines the assessment of beneficiary needs by construction projects. The authors advise that assessment of requirements is the first step in any intervention to develop organizational or human resources.

The recipient assessments (BA) of social funds have been reviewed by Owen, & Domellen (1998). In this review, the investigators examined the experience of social funding recipient assessments. The study was divided into two sections: the evaluation as a monitoring and evaluation tool of the use of recipient evaluations; and observations based on information from end-users regarding social funds operations. Fifteen beneficiary assessments in eight countries between 1989 and 1996 were reviewed by the researchers. They analyzed ARs as an instrument for monitoring and evaluation and (b) their beneficiaries performance of social funds. The

examination found that the recipient s evaluation was not a standard objective or design suitable for all social funds. The goals and subjects addressed in the various phases of the development of a social fund should be in line with the problems. The scientists suggested that the information generated in BAs should be quality and valid. They also suggested that communities should be notified before the fieldwork to maximize effective spending of fieldwork.

Grems (1991) dealt with the environmental assessment of the population of beneficiaries, their demands, their needs, their incidence and their illness. Consequently, a three-part analysis of the beneficiary population was developed to identify their age, gender and category of recipient; the needs and demands of recipients by means of a Beneficiary Health Care Survey were identified in a population sample; and the incidence of disease were determined. He used 988 households in a sample size. Using survey administration, data was collected. Grems found that the results of the study provide valuable information as a foundation for the strategic plan of the medical Centre. It also examines the needs of the recipient population and serves as a model for the development of their organizational strategic plans for other healthcare administrators.

In 2017 the USAID developed guidance to identify homes for orphans and vulnerable children in need of services. You noted there are several requirements for M&E reporting. Thus, M&E experts in these programmes, including for non-defined purposes, are prone to the development of broad-based tools which collect many types of information for multiple uses. This is a major strain on caregivers and results in inadequate and inadequate data utilization. This recognizes the need for a strong tool to assess the recipients requirements to help improve the monitoring process for recipients. They recommended an information needs framework for orphans and the management and evaluation of vulnerable children s programs addressed this issue. It includes several types of information needs, highlights, methods, collection of information and the frequency of information collection.

2.6 Beneficiary Involvement and Implementation of Devolved Road Construction Projects

A project s participation by local people or communities is operationally defined as "beneficial involvement" in this study. It was determined that the Productive Safety Net Program (PSNP) in Ethiopia and its Community Based Participatory Watershed Development strategy played a significant influence in affecting a project s physical condition and operating state (Shigute,

2021). According to soil and water conservation engineers, the study is based on survey data and technical assessments of 249 Soil and Water Conservation (SWC) projects in 53 watershed communities. Qualitative information acquired through interviews and discussions complements the survey. It s possible to estimate the effects of community involvement after adjusting for community fixed effects because numerous projects are located in the same watershed communities with different levels of engagement. Beneficiaries who are more involved in project monitoring and evaluation are significantly less likely to be injured and are in better operating condition, according to the study s authors It is clear from these data that community involvement resulted in more durable infrastructure.

Lawther (2009) focuses on community participation in post-catastrophe rebuilding after a disaster. The project was the subject of a case study to identify the project s successes, limits, and lessons learned. Study of community involvement in future reconstruction efforts after a disaster is examined. A few alternatives include project procurement approaches, active and passive methods of community participation, as well as the personal skills and management structure needed to help the community participate in post-disaster reconstruction. There is no doubt that these opportunities exist. Der Fallstudie und Forschungsergebnisse reflektieren Lawther s two-year experience as a construction manager as a result of his research, Lawther was able to determine the strengths and shortcomings of the community s involvement in post-disaster rehabilitation. In addition, he recognized opportunities and hazards associated with community reconstruction. He came to the conclusion that community participation in the reconstruction process is crucial, and that well-planned and resourceful initiatives that support this goal will lead to a more sustained and robust recovery following the disaster.

The stakeholders of program evaluation participants were interested in Brandon and Fukunaga (2013). Therefore, they systematically reviewed the scope and depth of the literature on the participation of stakeholders. They examined pairs of empirical studies as the first step in building a firm basis for a discussion about the participation of stakeholders. The review found that the components that the studies covered were significantly overlapped. The study also found that the involvement of stakeholders in the use of evaluation is one of the rare subjects studied repeatedly in evaluation literature. The reviewers suggested that the general subject in empirical literature deserves further study. As this is one of the gaps identified, the proposed study tends to address this by determining how stakeholder/beneficiary participation can contribute to improving construction projects.

Mercelis, Wellens, & Jegers, (2016), have been concerned with the involvement of beneficiaries in NGOs. In Vietnam, the researchers used this concept as a case study. 46 people participated in the case study. Interviews were used to collect data. Five channels of communication between the farmers or farmers groups in Vietnam and VECO were identified. Farmers have also found themselves more active in problems sharing than in solutions sharing. Researchers also found that the board members and other producers had no strong disagreement or contradiction. The researchers concluded that there is a clear lack of descriptive representation in the beneficiaries and that the strategic decisions were clearly not taken. They recommended the inclusion, as perceptions of different stakeholders must not be aligned, of a high quality downward accountability policy.

Concerned with the sustainability of donor-funded projects, Balozimorwa & Gabissa (2018) looked at the beneficiary s role in the process. OLMULO water project in Arusha was used as a case study to explore the impact of beneficiary involvement on donor-funded projects long-term viability Correlation and regression analyses were performed on 309 respondents who were referred to as beneficiaries of the donor-funded initiative OLMULO in the study. They also employed Chi-square and T tests to determine the strength of the association between the independent variables and their dependents. There was a 60% association between beneficiary involvement and the sustainability of donor-funded projects, according to the study. There is a possibility to increase the long-term viability of donor-funded initiatives by paying special attention to other elements that have the potential to make them more sustainable, the researchers concluded.

Masset & Haddad examined the impact of participatory surveillance intervention (2015). Consequently, they looked at how beneficiary feedback affected the performance of a farmer field school initiative in the Philippines (ParFARM). When we gave random input to the farmer s farmers, we saw that it had an impact on a number of different outcomes. It s been found that ParFARM boosts the farmers motivation and increases the project s success as measured by their knowledge and practices It was found in the study that this intervention did not increase agricultural production. ParFARM has a greater impact when more farmers attend field schools, according to researchers who also examined the impact of treatment intensity. Ultimately, they came to the conclusion that farmers would be better off participating in the field.

2.7 Beneficiary Feedback and Implementation of Devolved Road Construction Projects

As a result of this study, "beneficial feedback" is operationally defined as the numerous ways stakeholders express their opinions about project activities. When it came to the new Medicare educational materials McCormack, Garfinkel, Hibbard, Kilpatrick & Kalsbeek were concerned about the beneficiary survey-based reaction (2001). In addition, logistic regression analyses were used to compensate for other characteristics in influencing perceived utility of the items. During the study, researchers collected data from 3,573 former recipients. To assess the data, they used descriptive and multivariate analysis techniques Medicare & Your Guide, as well as other new Medicare informative materials, were viewed well in the research. However, despite its limitations, the majority of beneficiaries considered the information to be helpful Conclusion: Longer and more extensive materials were not seen as more valuable than a simpler version that was shorter and less complex Improved decision-support systems for recipients, according to the researchers, are a huge problem, and improved materials can help.

A study by Bai, Michalet, Zheng, Qin, & Zhang (2017) found that the benefactor facilitation and beneficiary feedback effects were driving shrub-dominated community succession in dune habitats. There were four study sites along a successional gradient where the shrub Artemisia ordosica was observed for its effects on understory plant abundance, biomass and richness Relative interaction indexes were used to analyze herbs (RII). An experiment in which they removed a shrub s vegetative and reproductive branches at its last successional stage was also carried out to determine the beneficial feedback effects. It was shown that herb consumption negatively affected the growth of the shrub s reproductive twigs. This antagonistic interaction between the shrub and the associated herbs played a key role in transitioning from shrub dominance to herb dominance, as indicated by the absence of shrub seedling recruitment towards the end of succession.

Prabhu, Shukla, & Roshni, (2021), were apprehensive about the assessment of Rashtriya Bal Swasthya Karyakram program implementation and beneficiary feedback at two district early intervention centers in the Indian state of Chhattisgarh. The researchers, therefore, assessed the functioning and infrastructure of district early intervention centers (DEICs) and beneficiary feedback. The study selected two regions: one good performing district (Raigarh) and one poor performing district (Raipur) were selected for rapid assessment. Observational check list according to norms was used for assessment of facilities, staffing pattern, and semi-structured questionnaire used for beneficiary feedback. Data were entered in Microsoft excel for the analysis. The study found that DEIC Raipur was deficient in staff and infrastructure. It also

found that 73.4% parents said loss of daily wages was a deterrent to go to DEIC repeatedly for follow-up. The study concluded that beneficiary feedback was below satisfaction and recommended new ways to improve beneficiary feedback.

Price (2018) was intrigued in refugee beneficiaries feedback systems, which he addressed in a paper. The result of this was that he looked at the beneficiary feedback mechanisms in humanitarian settings. Best practices, feedback approaches, and the impact of digital technology on beneficiary-agency relationships were all explored in connection to beneficiary feedback systems. Researchers found that impacts were generally limited to activities and programs, with few demonstrating sustained or considerable impacts at higher levels of organizations and strategic decision-making. It was also revealed that attribution to feedback mechanisms is equally challenging in this study s research. This correlates with the proposed study in that, it intends to look at how beneficiary feedback affects the performance of construction projects. He recommended that further research to be done on this area.

The Development Initiative (DEVINIT) (2016) was developed in 2016 in response to donor concerns about beneficiary feedback in donor program design, development, and assessment. Beneficiaries are needed by donor agencies in order to measure the results of their programming, as well as provide lessons for development and influence decision-making. A variety of strategies, including meetings and field visits, social media, and evaluations, were used by the donor agencies to solicit or uninvited feedback. According to the group, beneficiaries feedback was a way for project/program recipients to share their experiences, and a way for donors to hear from project/program recipients directly. Also, DEVIBIT has found that beneficiary input may be used to enhance projects, allowing for long-term improvements to improve efficiency and effectiveness by tracking project use and benefits. Donors should prioritize beneficiary feedback in program/project implementation, according to the organization s conclusion.

2.8 Beneficiary Satisfaction and Implementation of Devolved Road Construction Projects

This study analyzes beneficiary satisfaction as the degree to which a project satisfies the needs of both stakeholders and the local community. Sim, Lee, Kim, and Park looked at how different factors affect beneficiary satisfaction with a cancer patient financial assistance program (2010). To find out how satisfied Koreans are with their healthcare and the elements that influence it, this study was conducted. It was conducted between January and October 2009 as part of a

national financial support project. Student s t-tests and analysis of variance (ANOVA) were used to assess whether the mean satisfaction score differed based on the study items, followed by stepwise multiple regression analyses to determine the factors affecting it. Compared to socio demographic characteristics, the study indicated that patients with lung cancer had significantly higher satisfaction ratings when they were male, older and had a higher educational degree. A better public relations campaign and a public health center proven to be more effective because they do not have expectations, don t force people to spend, and don t put pressure on medical cost groups. According to their findings, these factors have an impact on beneficiary satisfaction.

Osman & Kimutai (2019) evaluated the elements that contributed to the success of road improvements in the Wajir County, Kenya. Wajir County road projects were evaluated in terms of contractor competences and capability, resource mobilization, target beneficiary participation, political goodwill and governance, as well as monitoring and evaluation as a result of the study. As part of this study, researchers used a descriptor-based method of analysis. A total of 280 members of various county road project management committees, 27 registered road contractors, and 300 local community leaders who represent local residents who are the intended beneficiaries of road projects drawn from various counties were among those in attendance, including five county officials from the transportation and infrastructure department. Primary data was collected using standardized questionnaires. The acquired data was analyzed using quantitative methods. They were analyzed using SPSS, which is a statistical package for social sciences. It was possible to extract both descriptive and inferential statistics. Wajir County road projects were shown to be positively and considerably influenced by contractors competencies/capacity as well as resource mobilization. On the other hand, the county s road projects were significantly impacted by resource mobilization, contractor competency and ability, and monitoring and assessment. Ultimately, the researchers found it vital to boost the satisfaction of relevant stakeholders and beneficiaries if they were to improve the implementation of road projects in the county. There should be institutions and rules for assessing beneficiary satisfaction, according to the research.

Stakeholder activities in Machakos County were the focus of Ndunda, Paul, & Mbura s (2017) research. To find out how stakeholder involvement affects the delivery of road improvements, researchers in Machakos County, Kenya, performed a research study. In Machakos County,

the inquiry focused on KERRA s rural road improvements. As a result of using a descriptive survey approach, the study s objectives were met, Staff at KERRA and several road construction stakeholders were surveyed as a result of the survey results. Using a semi-structured questionnaire, researchers collected data from respondents as part of the study. Descriptive and inferential statistics were derived from the data analysis. When it came to analyzing the data, social science statistical software was used.A recent study found that the activities of financiers had a positive and significant impact on road improvements in Machakos County. Because of continuous inspections, researchers decided that qualified contractors had supplied quality roads, which is boosted by beneficiary satisfaction because the standard of quality was not compromised According to the researchers, the government should ensure that monies are made accessible to contractors on schedule, and local leaders should be encouraged to work closely with oversight authorities in order to improve beneficiaries satisfaction with services.

An old-age pension program in urban Puducherry was studied by Jothi, Lakshminarayana, Ramakrishnan, and Selvaraj (2016). It was determined whether beneficiaries were satisfied with their pension benefits and how they used them, as well as how stakeholders viewed pension delivery. These interviews were conducted using a mix of quantitative and qualitative methods. An online poll was performed with 205 randomly selected pensioners from Puducherry. Beneficiaries and family members were interviewed in a total of 12 interviews. 98% of participants were content with the overall system, but half of them weren t happy with the amount they received, according to the study s findings. According to the findings of the study, 65 percent of participants were satisfied with the system in place for distributing pensions to the elderly. If you re a senior and need financial assistance, you re not alone. As India s older population grows, it s necessary to evaluate the programs so that corrective steps may be done to facilitate their access to the disadvantaged sector of society.

Through extensive community consultation, Capell & Ahmed (2021) hoped to increase beneficiary satisfaction by 2021. As part of their research, the researchers looked into the community consultation techniques utilized by implementation agencies to oversee PDHR programs. An initial assessment of pertinent publications and agency reports was used to gather information for the study, which employed qualitative research methods. The study also includes a case study. A crucial element of PDHR initiatives design and implementation is community consultation, according to the study. Another thing they observed was there are blockages that prohibit this method from achieving outcomes. An obstacle-removal framework

for community consultation was advocated as a way of ensuring that beneficiary needs are incorporated into housing design in order to increase beneficiary satisfaction with the housing delivered.

2.9 Theoretical Framework

The study is guided on the following 3 theories:

2.9.1 Theory of Change

According to the fundamental logic, road development projects can lead to socioeconomic change in the targeted population. The theory of change is based on this fundamental logic. It was developed by Carol Weiss and popularized in 1995, and it claims that ineffectiveness of projected results is one of the key reasons why it is difficult to evaluate complex projects in the first place. Since it s not clear what mini-steps must be done in order to attain the long-term goal, it s harder to evaluate complex initiatives and less likely that all key factors are addressed (Weiss,1995).

There are underlying circumstances or resources necessary for change to occur, according to Weiss (1995). Positive monitoring practices can be seen as inputs in the theory of change, and their effects can be seen as contributing to the intended outcome. It is also possible that the development of change theory can assist all participants in thinking in terms of outcomes that facilitate monitoring. Program planning and coordination can be improved by using this technique (Ika, 2009). As part of the project planning, monitoring, and monitoring cycle, the Change Theory is integrated or utilized at various times. Included in the scope and strategic analysis are the stages of conceptualization as well as planning.

2.9.2 Theory of Constraints

In 1984, Eliyahu Goldratt introduced the theory of limitations. When managers apply system thinking and the constraint management theory of constraints, the limitation theory can be used to demonstrate how they can effectively manage organizations (Kohli & Gupta, 2010). This management philosophy focuses on three levels of change: organization thinking, organization measures and organization procedures (Gupta & Boyd, 2008). It is necessary to deal with project management complications (Lau & Kong, 2006), as well as limits in the multi-party work environment required for building projects. One of the fundamental assumptions in this theory is that the organization may be judged by assessing the operational expenses and overall investment in it.

Some of the most difficult projects to manage, according to Jacob and McClelland (2001),

contain ambiguity and three opposing commitments: the due date, budget and content. Triple constraints (time, scope and cost) are widely acknowledged as a measure of project success in project management. To venture managers, three restrictions are essential to a venture s success. Achieving an auspicious conclusion by streamlining these three elements will teach you how to extend quality. There are individual impacts on venture execution from task scope (a measure of worth), cost, and time; nonetheless, because these components have some interaction, one vital has an impact on the other two, affecting venture expectancies to a greater extent (Hamid, Ahmad, Shah & Arshad) (2012).

2.9.3 Complexity Theory

Complexity theorist Stuart Kauffman (1996) opines that we are living in a world of complexity and change. We can t reduce the real world to basic, unchanging items that people can cut out of it (Merry,1995). Studying nature from a socio-authoritarian point of view, and how these effects might be used to create a more efficient framework for business transportation. It should, in particular, allow executives to react to core activities and improve tasks, the style of administration received, and the process of fundamental leadership, among other things. In addition, the specified qualities were linked to additional conditions (Antoniadis, Edum-Fotwe & Thorpe, 2006). Administratively, this notion regarding unpredictability opens up an entirely new world of possibilities, especially in the fields of administration and venture capitalist management.

"Project Management" has existed for decades in a complicated and multifaceted management context, according to Casing (2002) Again, Janice and Mengel (2008) concur that research and practice recognition are becoming more and more recognized as part of the multi-faceted nature of our activities and risk situations, including their tumult and instability. However, when management or colleagues were picked and a risk group was created, there was little consideration for social and authority components of complicated linkages and their qualities (Williams, 1999).

When it comes to corporate governance, the relationship between execution and unpredictability validates the non-linearity. Complexity management is possible if the characteristics are identified and a framework has been built with the help of project managers. For each process s planning and implementation, a monitoring level will be determined based on the complexity characteristic indicator and various steps will be taken to improve the effectiveness of complex links through project management processes (Perrow, 1967).

2.10 Conceptual Framework

Figure 2.1 depicts the independent and dependent variables that will be used to evaluate the impact of beneficiary monitoring on construction project performance. Beneficiary Identification, Beneficiary Needs Assessments, Beneficiary Involvement, Beneficiary Feedback, and Beneficiary Satisfaction are the five independent variables that will be evaluated. The figure also includes indicators for each independent variable, which will aid in evaluating the variables.

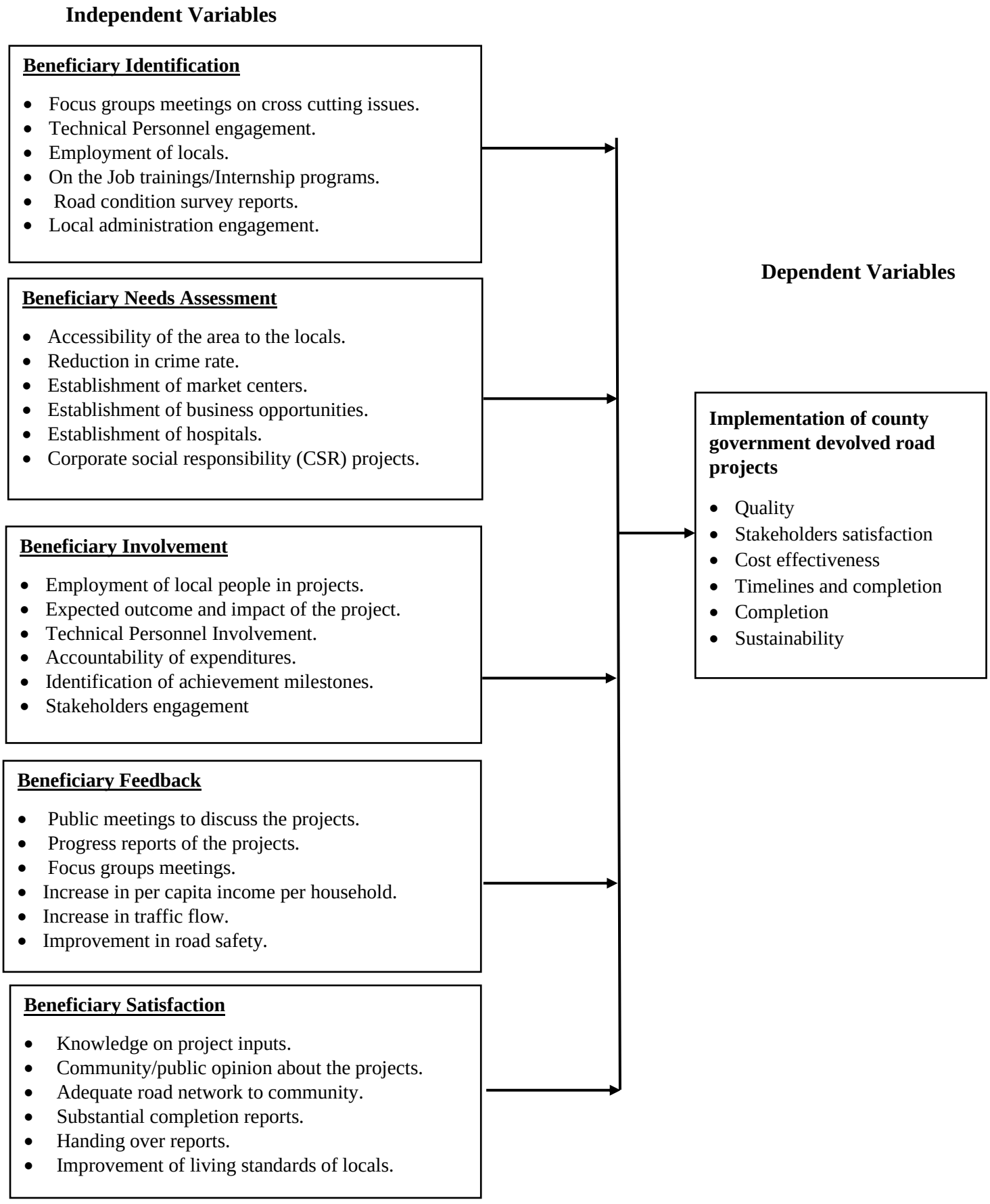

Figure 2.1: Conceptual Framework

2.11 Summary of Literature

On beneficiary identification and implementation of county government devolved roads construction projects, literature that was reviewed on works by Skoufias, et. all (2001); Haider, & Mahamud, (2017), Karuti, & Franco, (2015), Hossain1, Kaiser, et. all (2018), Findings from these studies suggest that there is a positive relationship between beneficiary identification and implementation of county government devolved road construction projects.

On beneficiary needs assessment and implementation of county government devolved road construction projects, literature was reviewed on works by; McLellan, (2014), USAID (2017); Owen, & Domelen, (1998); Grems, (1991), Leigh, et. all (2000); Findings from these studies suggest positive relationship between beneficiary needs assessment and implementation of county government devolved road construction projects.

On beneficiary involvement and implementation of county government devolved road construction projects, literature was reviewed on works by; Shigute, (2021); Mercelis, et. all (2016); Lawther, (2009); Masset, & Haddad, (2015), Brandon, et. all (2014), Balozimorwa & Gabissa, (2018); Findings from these studies suggest positive relationship between beneficiary involvement and implementation of county government devolved road construction projects.

On beneficiary feedback and implementation of county government devolved road construction projects, according to literature reviewed on works by; Price, (2018), McCormack, et. all (2001); (DEVINIT) (2016); Bai, et. all (2017); Prabhu, et. all (2021). Findings from these studies suggest positive relationship between beneficiary feedback and implementation of county government devolved road construction projects.

On beneficiary satisfaction and implementation of county government devolved roads construction projects, according to literature reviewed on works by; Jothi, et. all (2016), Sim, et. all (2019), Ndunda, et. all (2017), Capell, & Ahmed, (2021), findings from these studies suggest positive relationship between beneficiary satisfaction and implementation of county government devolved road construction projects.

On implementation of county government devolved road construction projects, according to studies conducted by the following authors; Wanjala, et. all (2017), Kananura, et. all (2017), Kisengese, (2012), Callistus, & Clinton, (2018), Kissi, et. all (2019), the findings of these studies suggest that the implementation of construction projects contribute significantly to the socio economic development increasing economic growth.

2.12 Gaps in Literature

Table 2.1 Gaps in Literature

Variables	Author /Year	Title of Study	Methodology	Findings of the Study	Gaps in Knowledge
Beneficiary Monitoring	Hoogeveen and Taptue,2000	Recipient responses to operation outputs and activities	Participatory Qualitative methods.	The management can continue to implement the operation according to plan from the follow ups carried out in line with recipient reactions.	Detailed investigation may be required for the management of the operation to be established.
Beneficiary Identification	Haider and Muhammud,2017	Evidence beneficiary selection and its implications on allowance utilization of social safety net programmes(SSN).	Cross sectional research design using simple random sampling method .	SSN are not always distributed among the poor and vulnerable people who deserve to receive the allocation for fighting against poverty and vulnerability	The study relied on simple random sampling and there was no intensification of beneficiary monitoring.
Beneficiary Needs Assessment	Leigh et al,2000	Alternative needs assessment models in order to choose the right model for agency.	Data based foundation approach.	The needs assessments ensures that resources(inputs) and processes produce useful results that demonstrate added value.	The study did not examine beneficiary needs assessment on performance of construction projects.
Beneficiary Involvement	Balozimorwa and Gabissa,2018	Beneficiary involvement on sustainability of donor funded project.	Correlation and Regression analysis on a data set of beneficiaries	The study found a positive and very statistically significant correlation of 60% between beneficiary involvement and sustainability of donor funded projects.	The study concluded that sustainability of projects does not entirely depend on beneficiary involvement.

Beneficiary Feedback	DEVINIT,2016)	Beneficiary feedback in donor programme design, development and evaluation	The study collected evidence from meetings, field visits, social and evaluations.	Results of the study indicated that beneficiary feedback can provide an opportunity for project improvement, which enables sustainable changes to improve effectiveness through tracking use and benefits of projects.	The study failed to link the beneficiary feedback with broader aspect on project implementation which adherence to quality aspects and timely completion of the projects.
Beneficiary Satisfaction.	Capell and Ahmed,2021	How to achieve a greater beneficiary satisfaction through effective community consultation.	The study involved qualitative research methodology.	The study found out that community consultation practises often forms a central role in planning and implementation of projects.	The study did not capture the main essence of beneficiary satisfaction to the impact of projects implementation ,including achieving quality, timely completion, sustainability and stakeholders satisfaction.
Implementation of devolved road Construction Projects	Osman and Kimutai,2019	Success factors in road projects in Wajir county	The study used descriptive research design	The study found that contractors competencies, resource mobilization ,political goodwill positively influence implementation of road projects in Wajir county.	The study failed to link beneficiary satisfaction and broader aspects that impact on real world decision-making, including acceptability to stakeholders, feasibility of implementation, sustainability, to implementation of road projects.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research approach utilized to perform the study is described in this chapter. The research design, target population, sample size and sampling processes, research instruments, pilot testing, instrument validity and reliability, data collecting procedures, data analysis methodologies, ethical concerns, and variable operationalization were among them.

3.2 Research Design

The research design was descriptive cross sectional and correlational. The study adopted a mixed mode research approach in which quantitative and qualitative research methods were applied concurrently. Using this design, the study was able to describe or explain the link that existing between variables without affecting those associations. The descriptive research method speeded up the acquisition of data. It allowed for the collection of accurate as well as high-quality research data.

3.3 Target Population

The target population for this study was 1100, which comprised County Chief Officers, County Engineers, Sub County Administrators, Ward Administrators, Departmental directors, Project Inspectors, Project implementation committee members, and Community members. Further breakdown is indicated in Table 3.1:

Table 3.1: Target Population

Target Group	Population
County Chief Officer	1
Sub-County Administrators	2
Ward administrators	4
Departmental Directors	3
County Engineers	4
Project Implementation Committee members	12
Project Inspectors	4
Community members	1070
TOTAL	**1100**

Source: Kisumu East Sub County, Kisumu County Monitoring and Evaluation County Office,

(2020)

3.4 Sampling Size and sampling procedures

According to Kothari and Garg, (2014), sample is the number of items to be selected from the universe for examination while sampling procedures are the techniques used to select the samples from a population. These are outlined below;

3.4.1 Sample size

The study used the Krejcie and Morgan table for sample size determination**.** The entire population for the study is 1100.From the Krejcie and Morgan tables (1970) the sample size is 285 at 95% level. The resulting sample size for the different strata of target population is shown in Table 3.2.

Table 3.1: Sample size of the various categories of target population

Target group	Population	Sample	Sampling method
County Chief Officer	1	1	Purposive
Sub-County Administrators	2	1	Purposive
Ward administrators	4	1	Purposive
Departmental Directors	3	1	Purposive
County Engineers	4		Purposive
Project Implementation Committee members	12	5	Simple random
Project Inspectors	4	1	Purposive
Community members	1070	274	Simple random
Total	**1100**	**285**	

Source: Kisumu East Sub County, Kisumu County Monitoring and Evaluation County Office; ,(2020).

3.4.2 Sampling Procedures

Both probability and non-probability sampling techniques were employed in this study. Simple random sampling was used under probability sampling technique whereas, purposive sampling was used under non probability sampling technique.

3.5 Research Instruments

Research instruments included self-administering questionnaires. The self-administered questionnaire has eight sections (A-G). Section A sought information on the demographic traits of the research participants. Section B to G had 5 Likert scale statements of both the

independent and the dependent variables. Section B sought for information on influence of Beneficiary Identification on implementation of devolved road construction projects. Section C sought for information on the influence of Beneficiary needs assessment on implementation of devolved road construction projects. Section D Sought to determine the influence of Beneficiary feedback on implementation of devolved road construction projects. Section E sought to investigate the influence of Beneficiary involvement on implementation of devolved road construction projects. Section F sought to investigate the influence of Beneficiary satisfaction on implementation of devolved road construction projects and the final Section G sought information on implementation of county government devolved road construction projects

3.5.1 Piloting of Research Instruments

Pilot testing is an important prerequisite aspect in questionnaire development with regard to the identification of any errors therein (Teijlingen and Hundley, 2001; Booth, 1995). According to Kothari (2004) the pre-testing sample size should be between 1% and 10% of the study sample size. The research instruments were taken through pilot testing for validity and reliability. The piloting took place in Bondo Sub County, Siaya County a neighbor to Kisumu east Sub County. Bondo Sub County, runs a similar devolved road construction project. The pilot study was undertaken on a convenience sample of 10 M&E staff members who weren t included in study sample were selected representing 10% minimum sample size sufficient to establish internal validity and consistence of the research instruments (Mugenda & Mugenda, 2003. Two weeks prior to actual data collecting period, this was completed. Piloting allowed us to double-check the phrasing of questions to ensure that respondents could offer the correct answers to the research questions, as well as establish how long each questionnaire would take to complete. The pre-test approach was being used to verify the tools reliability and stability over time, and the test re-test approach was performed on the modified instrument to see if it passed the suggested criterion of = 0.70 before being considered appropriate for use in research (Cronbach & Azuma, 1962).

3.5.2 Validity of Research Instruments

In this study, Content validity was used. This was established through expert consultations with peers, study supervisors and M&E experts (Creswell, 2003). To determine content validity, 2 experts from field of study at the University of Nairobi, who were research supervisors were issued with the data collection instruments to evaluate whether it was relevant and consistent to study objective by assessing each item on a scale of very relevant (4), relevant

(3), somewhat relevant (2), and not relevant (1). (1). Validity was determined using the Content Validity Index (CVI).

$$\text{CVI} = \frac{\text{Sum of item rated 3 or 4}}{\text{Number of Quetionnaire items}}$$

CVI equals the number of units in the surveys divided by the number of items scored 3 or 4 by both experts. Table 3.3 summarizes the results that were obtained.

Table 3.3: Experts Rating of Instruments

		Supervisor I				
		1	2	3	4	**Total**
Supervisor II	1	0	0	0	0	**0**
	2	0	0	0	0	**0**
	3	1	3	3	6	**13**
	4	1	1	8	7	**17**
	Total	**2**	**4**	**11**	**13**	**30**

Table 3.3 reveals that the validity index is CVI= $\frac{(11+13)}{30}$ = 0.80, which is acceptable because it above Cohen and Swerdlik s 0.7 standard (2010). As a result, at least seven of the ten items used in this study measured what they were supposed to measure.

Table 3.3 shows that validity index: CVI=, which is acceptable since it was more than the threshold of 0.7 recommended by Cohen and Swerdlik (2010). Hence out of any ten items used in this study, at least seven of them measured what they were intended to measure.

3.5.3 Reliability of Research Instruments

Reliability of the research instruments represents their ability to turn out same results if repeatedly applied on the same target population. The reliability of the instrument in this study was confirmed through pilot study. Before the instrument could be deemed fit for use in the study, a pre-test of reliability method was used to determine the stability and reliability of the instruments over time, and a re-test of reliability method was carried out on the corrected questionnaire to determine if the questionnaire achieved the recommended threshold of= 0.70 (Cronbach and Azuma, 1962). The study employed Cronbach s Alpha coefficient test reliability of the rating scaled questionnaire and items deleted in order to maximize their reliability coefficient. The coefficient was then compared against a threshold of α= 0.70 as a coefficient test for reliability as suggested by (Cohen & Swerdlick, 2010). Table 3.4 presents reliability findings.

Table 3.4: Reliability output results

Scale	No. of Items	Alpha
Beneficiary identification	5	0.847
Beneficiary needs assessment	5	0.773
Beneficiary involvement	5	0.789
Beneficiary feedback	5	0.747
Beneficiary satisfaction	5	0.875
Implementation of devolved road construction projects	5	0.860
Overall	**30**	**0.800**

The researcher made use of test-retest By sending the questionnaires to the 29 participants in Bondo Sub County M&E officials on two separate occasions, they were able to test and re-test the approach. The tools was re-tested with same group after one week; respondents were given questionnaires which had been fine-tuned to guarantee consistency in replies when compared to the prior survey. The instruments were easily employed for the real investigation once the re-test feedbacks were confirmed to be identical. According to Creswell (1994), a trustworthy research instrument should have a composite Cronbach Alpha Reliability Coefficient of at least 0.7 for all items under examination, and if Alpha 0.7, the research instruments were changed to an acceptable level before field work. During the pilot study (Test Re-Test). The piloted sample generated a Cronbach alpha of 0.80 This Coefficients were considered reliable enough for this study.

3.6 Data Collection Procedures

The investigator requested Kisumu East Sub-County construction project management committee members for their permission and contact information. Community members and stakeholder groups were contacted by the investigator for their preferred manner of administering the questionnaire, whether it be via email or drop off and pick up. The Researcher sought authority from national Commission for science and Technology (NACOSTI) and when it was issued the researcher notified the county Commissioner and county government about the intention to carry out the research. When it came to administering surveys, some were sent to respondents by email, while the remainder were done using drop-and-pick method. Within one week, the surveys gathered from the respondents were then analyzed.

3.7 Data Analysis Technique

All questionnaires were numbered and the data was coded after data collection. During preliminary editing, the raw data was rigorously reviewed, validated, and cleaned for completeness, consistency, and comprehensibility. Unanswered questions and contradictions were eliminated. As a data analysis tool, SPSS version 20 (Statistical Package for Social Sciences) was used for data analysis and processing.

In this research study, descriptive and inferential statistics were the key forms of analysis. Descriptive statistics showed where the most of the data set fall and the extent to which the data extend from the center. Tools that were employed for descriptive statistics were frequency counts, percentages, mean, standard deviation, composite mean and composite standard deviations. Determination of the relationship between variables was done using Pearson correlation. The coefficient of the Pearson correlation showed the strength and direction of the association of the beneficiary monitoring and implementation of county government devolved road construction projects in Kisumu east sub county, Kisumu county.

The correlation of determination was employed to analyze how differences in beneficiary monitoring is explained by the implementation of devolved roads projects. The correlation of determination gives a percentage or proportion in the dependent variable that is explained by the independent variable. The regression model developed was tested using the ANOVA test to determine the influence of the beneficiary monitoring on implementation of county government devolved roads. Using the Pearson correlation p-values under 2-tailed, the following five hypothesis were tested:

1. H_{o1}: There is no statistically significant relationship between Beneficiary identification and implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya
2. H_{o2}: There is no statistically significant relationship between Beneficiary Needs Assessment and the implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya.
3. H_{o3}: There is no statistically significant relationship between Beneficiary Involvement and the implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya.

4. H_{o4}: There is no statistically significant relationship between Beneficiary Feedback and implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya
5. H_{o5}: There is no statistically significant relationship between Beneficiary Satisfaction and the implementation of devolved road construction projects in Kisumu east sub county, Kisumu County, Kenya.

Model 1 for Hypothesis1; HO_1: There is no statistically significant relationship between Beneficiary identification and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya.

Implementation of devolved road construction projects = *f* (Beneficiary identification, random error)

$Y_j=\beta_0+\beta_1X_1+\varepsilon_i$

Where β_0- Population s regression constant, X_1 – Beneficiary identification, β_i the regression coefficient of Beneficiary identification and ε -is the Model error variable.

Model 2 for Hypothesis2; $H0_2$: There is no statistically significant relationship between Beneficiary needs assessment and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya.

Implementation of devolved road construction projects = *f* (Beneficiary needs assessment, random error)

$Y_j=\beta_0+\beta_2X_2+\varepsilon_i$

Where β_0- Population s regression constant, X_2 – Beneficiary needs assessment, β_i the regression coefficient of Beneficiary needs assessment and ε -is the Model error variable

Model 3 for Hypothesis3; $H0_3$: There is no statistically significant relationship between Beneficiary involvement and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya.

Implementation of devolved road construction projects = *f* (Beneficiary involvement, random error)

$Y_j=\beta_0+\beta_3X_3+\varepsilon_i$

Where β_0- Population s regression constant, X_3 – Beneficiary involvement, β_i the regression coefficient of Beneficiary involvement and ε -is the Model error variable

Model 4 for Hypothesis4: **$H0_4$**: There is no statistically significant relationship between Beneficiary feedback and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya.

Implementation of devolved road construction projects = f (Beneficiary feedback, random error)

$Y_j=\beta_0+\beta_4X_4+\varepsilon_i$

Where β_0- Population s regression constant, X_4 – Beneficiary feedback, β_i the regression coefficient of Beneficiary involvement and ε -is the Model error variable

Model 5 for Hypothesis5; $H0_5$: There is no statistically significant relationship between Beneficiary satisfaction and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya.

Implementation of devolved road construction projects = f (Beneficiary satisfaction, random error)

$Y_j=\beta_0+\beta_5X_5+\varepsilon_i$

Where β_0- Population s regression constant, X_5– Beneficiary satisfaction, β_i the regression coefficient of Beneficiary satisfaction and ε -is the Model error variable

The multiple regression model was based on the following assumptions which were subjected to statistical diagnosis;

Normality assumptions, Linearity assumption, Multicollinearity and Auto-correlation assumptions.

3.7.1 Summary of Tests of Hypotheses

To draw empirical results, multiple hypotheses were tested at 95% confidence interval. If the p-value obtained was less than 0.05, the null hypothesis was rejected and the alternative accepted. The overview of the study hypothesis, and the interpretation of the predicted outcomes are shown in Table 3.5.

Table 3.5: Statistical Tests of Hypotheses

Objectives	Hypotheses	Statistical Model	Statistical Analysis tool	When to accept or reject
To establish the extent to which beneficiary identification influences the implementation of devolved road construction projects in Kisumu East Sub county, Kisumu county, Kenya.	H1: There is no statistically significant relationship between Beneficiary identification and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya	$Y_j=\beta_{0+}\beta_1X_{1+}\varepsilon_i$ Y_j= Implementation of devolved road construction projects X_1= Beneficiary identification	Correlation, simple linear regression	*P-Value*>0.5 do not Reject *P-Value* ≤0.5 Reject
To assess the extent to which beneficiary needs assessment influences the implementation of County government devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya	H2: There is no statistically significant relationship between Beneficiary needs assessment and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya	$Y_j=\beta_{0+}\beta_2X_{2+}\varepsilon_i$ Y_j = Implementation of devolved road building projects X_2= Beneficiary needs assessment	Correlation, simple linear regression,	*P-Value*>0.5 do not Reject *P-Value* ≤0.5 Reject
3.To determine the extent to which beneficiary involvement influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya.	H3: There is no statistically significant relationship between Beneficiary involvement and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya	$Y_j=\beta_{0+}\beta_3X_{3+}\varepsilon_i$ Y_j = Implementation of devolved road building projects X_3= Beneficiary involvement	Correlation, simple linear regression,	*P-Value*>0.5 do not Reject *P-Value* ≤0.5 Reject

Objectives	Hypotheses	Statistical Model	Statistical Analysis tool	When to accept or reject
4. To determine the extent to which beneficiary feedback influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya *supply in Nyamira South Sub-county.*	H4: There is no statistically significant relationship between Beneficiary feedback and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya	$Y_j=\beta_{0+}\beta_4X_{4+}\varepsilon_i$ Y_j = Implementation of county government devolved road building projects X_4= Beneficiary feedback	Correlation, simple linear regression	*P-Value*>0.5 do not Reject *P-Value* ≤0.5 Reject
5.To establish the extent to which beneficiary satisfaction influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya	H5: There is no statistically significant relationship between Beneficiary satisfaction and implementation of devolved road construction projects in Kisumu east sub county, Kisumu county, Kenya	$Y_j=\beta_{0+}\beta_4X_{4+}\varepsilon_i$ Y_j = Implementation of county government devolved road construction projects X_6= Beneficiary satisfaction	Correlation, simple linear regression	*P-Value*>0.5 do not Reject *P-Value* ≤0.5 Reject

3.8 Ethical Consideration

A letter of transmittal was used by the investigator to get permission from the sub-county office and the construction project s management committee while collecting data on the construction site. It was expected that all participants would be honest during the data collection period. As part of the study, the investigator emphasized the importance of voluntary permission, allowing participants to participate in the study at their own discretion. Information provided by respondents was treated with the highest level of confidentiality and privacy. Determination of the study s academic nature was also made by the investigator.

3.9 Operationalization of the Variables

The variables of the study were operationalized as indicated in Table 3.2

Table 3.2: Operationalization of the Variables

Objectives	Variables	Indicators	Measuring Scale	Research Approach	Type of Analysis	Tools of Analysis
To assess the extent to which Identification influences the implementation of devolved road construction projects in Kisumu east sub county, Kisumu county ..	Beneficiary Identification	Focus groups meetings Technical personnel engagement Employment of locals On the job trainings	Ratio Ordinal Interval	Quantitative and Qualitative	Descriptive and Inferential statistics	Arithmetic mean Standard Deviation Regression and Pearson s correlation (r) Analyses
To assess the extent to which Beneficiary needs assessment influences the implementation of devolved road construction projects in Kisumu east sub county, Kisumu county .	Beneficiary needs assessment	Accessibility of the area to locals Reduction in crime Establishment of markets Business opportunities Establishment of hospitals	Ratio Ordinal Interval	Quantitative and Qualitative	Descriptive and Inferential statistics	Arithmetic mean Standard Deviation Regression and Pearson s correlation (r) Analyses
To establish the extent to which Beneficiary involvement influences the implementation of devolved road construction projects in Kisumu east sub county,	Beneficiary involvement	Employment of local people in projects Quality outcomes and impact of the project Accountability of expenditures	Ratio Ordinal Interval	Quantitative and Qualitative	Descriptive and Inferential statistics	Arithmetic mean Standard Deviation Regression and Pearson s correlation (r) Analyses

Kisumu county						
To assess the extent to which Beneficiary feedback influences the implementation of devolved road construction projects in Kisumu east sub county, Kisumu county .	Beneficiary feedback	Project goals Public meetings Project reports Focus groups meetings Per capita income increase	Ratio Ordinal Interval	Quantitative and Qualitative	Descriptive and Inferential statistics	Arithmetic mean Standard Deviation Regression and Pearson s correlation (r) Analyses
To assess the extent to which Beneficiary satisfaction influences the implementation of devolved road construction projects in Kisumu east sub county, Kisumu county..	Beneficiary satisfaction	Knowledge on project inputs Public opinion Adequate road network Substantial completion reports	Ratio Ordinal Interval	Quantitative and Qualitative	Descriptive and Inferential statistics	Arithmetic mean Standard Deviation Regression and Pearson s correlation (r) Analyses
Implementation of devolved road construction projects.	Implementation of roads construction projects	Quality Stakeholders satisfaction Cost effectiveness Timeliness and completion	Ratio Ordinal Interval	Quantitative and Qualitative	Descriptive statistics	Arithmetic mean Standard Deviation

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1. Introduction

This part offers the study findings, which are presented in terms of theme and sub-thematic categories in accordance with the goals. The response rate of surveys, as well as the demographic features of the participants, is among the thematic themes. Beneficiary Identification and Implementation of devolved road construction projects, Beneficiary Needs Assessment and Implementation of devolved road construction projects, Beneficiary Involvement and Implementation of devolved road construction projects, Beneficiary Feedback and Implementation of devolved road construction projects, Beneficiary Satisfaction and Implementation of devolved road construction projects and finally Implementation of devolved road construction projects. This chapter included descriptive, inferential, and qualitative statistical analysis, all of which were discussed.

4.2 Questionnaire Return Rate

Out of the sample size of 285 from the target population who were issued with questionnaires, 285 dully filled and returned the questionnaires giving a return rate of 100%. The Return Rate of issued questionnaires is as presented in Table 4.1.

Table 4.1: Questionnaire Return Rate

Kisumu County	**Sampled**	**Returned**	**Return Rate%**
Respondent	285	285	100
Total	**285**	**285**	**100**

The high return rate was attained because the researcher consistently followed up all the sampled respondents by maintaining physical contacts and constant phone calls. The excellent response rate (100%) made it easier to collect enough data to analyze the impact of beneficiary monitoring on the implementation of devolved road construction projects in Kisumu East Sub County, Kisumu County. According to Mugenda and Mugenda (2003) and Kothari (2004), a Questionnaire return rate of more than 50% is appropriate in study and therefore satisfying, and adds to the collection of adequate information that can be generalized to reflect the viewpoints of respondents.

4.3 Demographic characteristics of the Respondents

Basic information about the participants was required in order to comprehend the characteristics of those with whom the researcher was working in the study. The participants were asked to provide information on gender, age, educational level, and position category distribution in County Government. This demographic information was requested from the participants. Tables 4.2 contain the findings, which are further addressed in the subthemes that follow.

Table 4.2: Demographic characteristics of the Respondents

Gender	**Frequency**	**Percent**
Female	110	38.6
Male	175	61.4
Total	**285**	**100**
Age group(years)		
18-20	29	10.2
21-25	50	17.5
26-30	52	18.2
31-35	46	16.1
36-40	48	16.8
41-45	44	15.4
Above 45	16	5.8
Total	**285**	**100**
Educational level		
Primary school certificate	29	10.1
Secondary school certificate	70	24.6
Certificate	55	19.3
Diploma	77	27
Bachelor s degree	44	15.4
Master s degree	7	2.5
PhD	3	1.1
Total	**285**	**100**
Position Category		
County Chief Officer	1	0.4
Sub-County administrator	1	1.4
Departmental director	1	1.4
County Engineer	1	1.1
Ward administrator	1	1.6
Project Inspectors	1	1.4
Community members	274	86
Project implementation committee member	5	6.7
Total	**285**	**100**

4.3.1 Distribution of respondents by Gender

To establish gender parity in Beneficiary, it was critical to look into the gender of the respondents. Monitoring and Implementation of County Government Devolved Road Construction Projects in Kisumu East Sub County, Kisumu County. The information sought on gender was significance to the Kisumu County Government for policy decisions on Implementation of County Government Devolved Road Construction Projects. Table 4.2 reveals that males accounted for over half of the responses, with 175 (61.4%), while females accounted for 110. (38.6 percent). The results showed that male research participants outnumbered female equivalents, demonstrating that gender parity was still present. The study s conclusion is that the majority of males invests their time and become focused with beneficiaries Monitoring and Implementation of County Government Devolved Road Construction Projects in Kisumu East Sub County as compared to the female counterparts.

4.3.2 Distribution of the Respondents by Age

Survey respondents too were requested to disclose their age in order to determine if they were dispersed evenly across age groups. To make sure the information represent perspectives from various age groups, age representation across the age groupings was employed. Table 4.2, indicates that 29 (10.2%) were between 18- 20 years, 50 (17.5%) were in the 21-25 years category, 52 (18.2%) were aged between 26-30 years, 46 (16.1%) were aged between 31-35 years, 48 (16.8%) were aged between 36-40 years, 44 (15.4%) were aged between 41-45 years while 16 (5.8%) were above 45 years of age. This distribution is skewed to older age groups as evidenced by 72.3% of the respondents who were aged 26 years and above; implying that most of the respondents were mature persons, therefore, expected to respond adequately to the questions relating to beneficiary Monitoring and Implementation of County Government Devolved Road Construction Projects in Kisumu East Sub County.

4.3.3 Distribution of respondent by level of Education

In addition, participants were required to provide their educational level. The participant degree of education is important in giving knowledge about the impact of beneficiary monitoring on Implementation of County Government Devolved Road Construction Projects in Kisumu East Sub County, Kenya. The study findings indicated that 29 (10.1%) had primary certificate qualification, 70 (24.6%) had secondary certificate qualification, 55 (19.3%) had certificate qualification, 77 (27%), had diploma qualification, 44(15.4%) had bachelor s degree qualification, 7(2.5%) had master s degree qualification and 3 (1.1%) had other educational qualification. The implication of this findings to the study is

that 65.3% of the respondents were educated beyond secondary school, hence, expected to understand and objectively respond to the questions put to them regarding beneficiary Monitoring and Implementation of County Government Devolved Road Construction Projects in Kisumu East Sub County.

4.3.5 Distribution of respondents by position category in the County Government

It was imperative to investigate the respondents position category to establish how beneficiary Monitoring and Implementation of Devolved Road Construction Projects in Kisumu East Sub County were related with cadre of the educational background; whose information were considered to be significance to the road construction agencies for policy decision making.

Table 4.3: Distribution of Respondents by position category

Position category	Frequency	Cumulative frequency	Valid Percent	Cumulative percentage
County chief officer	1	1	0.4	0.4
Sub County administration	4	5	1.4	1.8
Departmental director	4	9	1.4	3.2
County Engineers	3	12	1.1	4.3
Ward administrators	5	17	1.6	5.9
Project Inspectors	4	21	1.4	7.3
Community members	245	266	86	93.3
Project implementation committee member	19	285	6.7	100
Total	**285**		**100.00**	**100**

Table 4.3, shows that 1(0.4%) was categorized as county chief officer, 4(1.4%) each were categorized as sub county administrator, departmental director and project inspectors respectively, 3(1.1%) were categorized as county engineers structural, 5(1.6%) were categorized as ward administrators, 245(86%) were categorized as community members and 19 (6.7%) were categorized as project implementation committee members. The findings on position category indicates that beneficiary Monitoring and Implementation of Devolved Road Construction Projects in Kisumu East Sub County are undertaken by qualified personnel capable of responding to information sought on beneficiary Monitoring and Implementation of County Government Devolved Road Construction Projects in Kisumu East Sub County.

4.4. Implementation of County Government Devolved Road Construction Projects

Implementation of Devolved Road Construction Projects was the response variable. From review of theories and empirical literature, it was evident that adherence to quality standards, implementation of county government road projects, timely completion of county government devolved road projects, sustainable county government devolved road projects and cost effective county government devolved road projects are crucial measures of Implementation of Devolved Road Construction Projects. Data was gathered to assess five measures of County Government Devolved Road Construction Project Implementation. Respondents were invited to reply to the questions on a Likert scale of 1-5, with Strongly agree (SA)= 5, Agree (A) = 4, Neutral (N) = 3, Disagree (D) = 2, and Strongly disagree (SD) = 1. For each response in each item, the findings were evaluated and presented using frequency, percentages, averages, and standard deviations. In Table 4.4, the line item means/standard deviations, as well as the composite mean/composite standard deviation, were computed.

Table 4.4: Implementation of County Government Devolved Road Construction Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Adherence to quality standards leads to successful Implementation of county government devolved road construction projects	160(56.1%)	107(37.5%)	12(4.2%)	3(1.1%)	3(1.1%)	4.37	0.667
2. County government devolved roads construction projects are cost effective	81(28.4%)	168(58.9%)	15(5.3%)	14(4.9%)	7(2.5%)	4.29	0.785
3. Implementation of county government road projects enhances stakeholder satisfaction..	75(26.3%)	167(58.6%)	27(9.5%)	12(4.2%)	4(1.4%)	4.40	0.518
4. County government devolved road projects are completed in time.	74(26%)	148(51.9%)	24(8.4%)	28(8.8%)	11(3.9%)	4.25	0.730
5. County government devolved road projects are sustainable.	106(37.2%)	114(40%)	21(8.4%)	35(12.3%)	6(2.1%)	4.29	0.674
Composite mean & Composite standard deviation						**4.18**	**0.867**

The results in Table 4.4 indicates that the average mean and Standard deviation for the Implementation of Devolved Road Construction Projects were 4.18 and 0.867 respectively; suggesting that majority of respondents agreed (Mean= 4.18) that their Implementation of Devolved Road Construction Projects in view of the key indicators aforementioned. Similarly,

five statements were developed to measure the extent of Implementation of Devolved Road Construction Projects.

Statement (1) that *Adherence to quality standards leads to successful Implementation of county government devolved road construction projects* The standard deviation was 0.667 and the mean was 4.37. According to the findings, 160 (56.1%) highly agreed, 107 (37.5%) agreed, 12 (4.2%) were neutral, 3 (1.1%) disagreed, and 3 (1.1%) severely disagreed that adherence to quality standards leads to successful Implementation of county government devolved road construction projects. The mean value for the statement was 4.37 was higher than the aggregate mean of 4.18; From the result is evident that adherence to quality standards leads to successful Implementation of county government devolved road construction projects and hence positively influence of Implementation of Devolved Road Construction Projects. The standard deviation for the first statement was 0.667 and the aggregate was 0.867 an indication that opinion among the study participants converge. The study results supports finding by Matembo, F (2016) in his research that adherence to quality standards leads to successful Implementation of devolved road construction projects.

Statement (2) that *County government funded roads construction projects are cost effective* The standard deviation was 0.785 and the mean was 4.29. According to the findings, 81 (28.4%) strongly agreed, 168 (58.9%) agreed, 15 (5.3%) were neutral, 14 (4.9%) disagreed, and 7 (2.5%) strongly disagreed that out of 285 study participants, 81 (28.4%) strongly agreed, 168 (58.9%) agreed, 15 (5.3%) were neutral, 14 (4.9%) disagreed, and 7 (2.5%) strongly disagreed that County government funded roads construction projects are cost effective. The mean value for this statement (4.29) was greater than the aggregate mean value (4.18); this finding implies that devolved roads construction projects are cost effective and therefore has a positive impact on Implementation of Devolved Road Construction Projects. The statement has standard deviation of 0.785 compared to aggregate value of 0.867 an indication that there was a convergence opinion among the study participants. The study results supports finding by Musyoka, A.N (2018) in his research who found out that County government funded roads construction projects are cost effective and hence positively influence of Implementation of County Government Devolved Road Construction Projects.

Statement (3) that *Implementation of county government road projects enhances stakeholder satisfaction* had a mean of 4.40 and a standard deviation of 0.518. The findings showed that, 75(26.3%) strongly agreed, 167(58.6%) agreed, 27(9.5%) were neutral, 12(4.2%) disagreed and 4(1.4%) strongly disagreed that Implementation of county government road projects enhances

stakeholder satisfaction. The mean value for this statement (4.40) was greater than the aggregate mean (4.18); this implies that Implementation of county government road projects enhances stakeholder satisfaction and therefore has positive effect on implementation of devolved road Construction Projects. The standard deviation (0.518) for the statement and the aggregate value (0.867) indicate there was a convergence opinion among the study participants. The study results supports finding by Yeri, T.M (2018) in their research who found out that Implementation of county government road projects enhances stakeholder satisfaction and hence positively influence of Implementation of Devolved Road Construction Projects.

Statement (4) that *County government devolved road projects are completed in time* recorded mean value of 4.25 and a standard deviation of 0.730. From the findings, 74(26%) strongly agreed, 148(51.9%) agreed, 24(8.4%) were neutral, 28(9.8%) disagreed and 11(3.9%) strongly disagreed that County government devolved road projects are completed in time. The mean value for the statement (4.25) was higher than aggregate mean (4.18); The implication of this result to the study is that County government devolved road projects are completed in time and therefore has positive impact on implementation of Devolved Road Construction Projects. The standard deviation (0.730) for the statement in comparison with aggregate standard deviation (0.867) indicate that there was a convergence opinion among the study participants. The study results supports finding by Musyoka, A.K (2018) in his research who found out that County government devolved road projects are completed in time would positively influence of Implementation of Devolved Road Construction Projects.

Statement (5) that *County government devolved road projects are sustainable* had a mean of 4.29 and a standard deviation of 0.674. The findings show that 106(37.2%) strongly agreed, 114(40%) agreed, 24(8.4%) were neutral, 35(12.3%) disagreed and 6(2.1%) strongly disagreed that County government devolved road projects are sustainable. The mean value for the statement (4.29) was high compared to the aggregate score (4.18); the implication of this result to the study is that County government devolved road projects are sustainable and hence positively influence Implementation of County Government Devolved Road Construction Projects. The standard deviation for the statement (0.674) compared to the aggregate (0.867) an indication that there was a convergence opinion among the study participants. The study results supports finding by Osman, M. A. and Kimutai, G. (2019) that County government devolved road projects are sustainable and would positively influence of Implementation of County Government Devolved Road Construction Projects.

This finding were also corroborated by the key informants during the interview session who had this to say in line with their experiences with Implementation of County Government Devolved Road Construction Projects

> *“ Implementation of Devolved Road Construction Projects have been successful due to adherence of quality standards and the way the devolved roads in many of our places here are being completed within stipulated timelines . (Respondent 4).*

4.5 Beneficiary identification and Implementation of devolved road construction projects

Beneficiary identification in this study i**s** defined as the selection of people or group of people through focus groups meetings on cross cutting issues, technical personnel engagement, employment of locals, on the job trainings/internship programs, road condition survey reports and local administration engagement, in which the project will have a positive impact. It was study s primary goal, thus respondents were asked to rate their degree of agreement with the five claims of Beneficiary identification on a scale of 1 to 5. For each response in each item, the findings were evaluated and presented using frequencies, percentages, means, and standard deviations. The item mean and standard deviation were also computed and given in Table 4.5.

Table 4.5: Beneficiary Identification and Implementation of Devolved Road Construction Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Focus groups meetings ensures successful implementation of county government funded construction projects	118(41.4%)	137(48.1%)	2(0.7%)	18(6.3%)	10(3.5%)	4.30	0.764
2. Technical Personnel engagement enhances faster implementation of county government devolved roads construction projects	73(25.6%)	174(61.1%)	10(3.5%)	22(7.7%)	6(2.1%)	4.29	0.663
3. Employment of locals leads smooth implementation of county government devolved road construction projects	77(27%)	171(60%)	11(3.9%)	21(7.4%)	5(1.8%)	4.41	0.631
4. On the job trainings brings about faster implementation of county government devolved road construction projects	68(23.9%)	156(54.7%)	17(6%)	36(12.6%)	8(2.8%)	4.24	0.638
5. Prioritization of road network enhances smooth implementation of county government devolved road construction projects..	70(24.6%)	151(53%)	28(9.8%)	18(6.3%)	18(6.3%)	4.36	0.615
Composite mean & Composite standard deviation						**4.35**	**0.925**

The results in Table 4.5 indicates that the composite mean and composite Standard deviation for Beneficiary identification were 4.35 and 0.925 respectively; implying that using the Likert scale a majority of participants agreed (mean=4.35) that Beneficiary identification influence Implementation of Devolved Road Construction Projects. Similarly, five statements

were developed to measure the extent of influence of Beneficiary identification on Implementation of Devolved Road Construction Projects.

Statement (1) that *Focus groups meetings ensures successful implementation of devolved road construction projects* had a mean of 4.30 and a standard deviation of 0.764. This results indicate that out of 285 study participants, 118(41.4%) strongly agreed, 137(48.1%) agreed, 2(0.7%) were neutral, 18(6.3%) disagreed and 10(3.5%) strongly disagreed that focus groups meetings ensures successful implementation of county government funded road construction projects. This results shows that the line statement mean score of 4.30 was slightly lower than the composite mean of 4.35; The implication of this result to the study is that focus groups meetings moderately ensures successful implementation of county government funded road construction projects and hence positively influence of Implementation of Devolved Road Construction Projects. The lower line item standard deviation of 0.764 than the composite standard deviation of 0.925 indicate that there was a convergence opinion among the study participants. The study results supports finding by Yeri, T. M. (2018) that focus groups meetings ensure successful implementation of county government funded road construction projects

Statement (2) that *Technical Personnel engagement enhances faster implementation of devolved roads construction projects* had a mean of 4.29 and a standard deviation of 0.663. This results indicate that out of 285 study participants, 73(25.6%) strongly agreed, 174(61.1%) agreed, 10(3.5%) were neutral, 22(7.7%) disagreed and 6(2.1%) strongly disagreed that technical Personnel engagement enhances faster implementation of county government devolved roads construction projects. This results shows that the line statement mean score of 4.29 was lower than the composite mean of 4.35; The implication of this result to the study is that there is need to engage with technical Personnel in order to enhance faster implementation of county government devolved roads construction projects. The lower line item standard deviation of 0.663 than the composite standard deviation of 0.925 indicate that there was a convergence opinion among the study participants. The study results supports finding by Ngetich, E. (2017) in his research who found out that engagement with technical Personnel enhance faster implementation of county government devolved roads construction projects..

Statement (3) that *Employment of locals leads to smooth implementation of devolved road construction projects* had a mean of 4.41 and a standard deviation of 0.631. This results indicate that out of 285 study participants, 77(27%) strongly agreed, 171(60%) agreed, 11(3.9%) were neutral, 21(7.4%) disagreed and 5(1.8%) strongly disagreed that employment

of locals leads to smooth implementation of county government devolved road construction projects. This results shows that the line statement mean score of 4.41 was higher than the composite mean of 4.35; The implication of this result to the study is that employment of locals leads to smooth implementation of county government devolved road construction projects. The lower line item standard deviation of 0.631 than the composite standard deviation of 0.925 indicate that there was a convergence opinion among the study participants. The study results supports finding by Purwanto, E. A., Pramusinto, A., & Margono, S. A. (2019).) in their research who found out that employment of locals leads to smooth implementation of county government devolved road construction projects.

Statement (4) that *On the job trainings brings about faster implementation of devolved road construction projects* had a mean of 4.34 and a standard deviation of 0.638. This results indicate that out of 285 study participants, 68(23.9%) strongly agreed, 156(54.7%) agreed, 17(6%) were neutral, 36(12.6%) disagreed and 8(2.8%) strongly disagreed that on the job trainings brings about faster implementation of devolved road construction projects. This results shows that the line statement mean score of 4.34 was slightly lower than the composite mean of 4.35; The implication of this result to the study is that on the job trainings moderately brings about faster implementation of devolved road construction projects. The lower line item standard deviation of 0.638 than the composite standard deviation of 0.925 indicate that there was a convergence opinion among the study participants. The study results supports finding by Kubai, M. M. (2015) that on the job trainings moderately brings about faster implementation of devolved road construction projects.

Statement (5) that *Prioritization of road network enhances smooth implementation of devolved road construction projects.* had a mean of 4.36 and a standard deviation of 0.615. This results indicate that out of 285 study participants, 70(24.6%) strongly agreed, 151(53%) agreed, 28(9.8%) were neutral, 18(6.3%) disagreed and 18(6.3%) strongly disagreed that prioritization of road network enhances smooth implementation of county government devolved road construction projects. This results shows that the line statement mean score of 4.41 was higher than the composite mean of 4.35; The implication of this result to the study is that prioritization of road network enhances smooth implementation of county government devolved road construction projects. The lower line item standard deviation of 0.615 than the composite standard deviation of 0.925 indicate that there was a convergence opinion among the study participants. The study results supports finding by Simiyu, J. K. (2015) in their

research that prioritization of road network enhances smooth implementation of devolved road construction projects. This finding were also corroborated by the key informants during the interview session who had this to say in line with beneficiary identification and Implementation of County Government Devolved Road Construction Projects

> *" Implementation of Devolved Road Construction Projects have been successful due to prioritization of road network enhances smooth implementation of devolved road construction projects . (Respondent 13).*

4.5.1 Correlation analysis of Beneficiary identification and Implementation of Devolved Road Construction Projects

The study sought to examine the relationship between Beneficiary identification and Implementation of Devolved Road Construction Projects. Pearson correlation coefficient was used to test the relationship between Beneficiary identification and Implementation of Devolved Road Construction Projects at 95% level of confidence. The correlations results obtained are shown in Table 4.6

Table 4.6: Correlation analysis of Beneficiary identification and Implementation of Devolved Road Construction Projects

Variable	Statistics	Implementation of County Government Devolved Road Construction Projects
Beneficiary identification	Pearson correlation	0 .288*
	Sig.(2-tailed)	0.000
	n	285

(n=285); *Correlation is significant at 0.05 level (2-tailed)

In order to determine the correlation between Beneficiary identification and Implementation of Devolved Road Construction Projects, Pearson correlation coefficient was run on the scores of each scale. The total scores of the scales were computed as a summation of the individual scores on each item by the respondent at 95% level of confidence. The study found a positive overall correlation(r=0.288) which was statistically significant as P-value 0.000<0.05(p=0.000). This implies that there is a significant relationship between Beneficiary identification and Implementation of Devolved Road Construction Projects leading to rejection of the null hypothesis (H_0 : There is no significant relationship Beneficiary identification and

Implementation of County Government Devolved Road Construction Projects) and acceptance of the alternative hypothesis, and hence the research findings conclude that there is a significant relationship between Beneficiary identification and Implementation of Devolved Road Construction Projects. This finding is in agreement with findings by Osman, M. A. and Kimutai, G. (2019) found that there is a significant relationship between Beneficiary identification and Implementation of Devolved Road Construction Projects.

4.5.2. Regression Analysis of Beneficiary identification on Implementation of Devolved Road Construction Projects

Simple linear regression was applied in examining how Beneficiary identification influence Implementation of Devolved Road Construction Projects. This model was adopted to establish how Beneficiary identification as a predictor had significant or insignificant predictor Implementation of Devolved Road Construction Projects.

4.5.2.1 Model summary of Beneficiary identification on Implementation of Devolved Road Construction Projects

The main model summary sought to determine if Beneficiary identification is a significant or insignificant predictor of Implementation of Devolved Road Construction Projects**.** Table 4.7 shows the findings obtained.

Table 4.7: Regression Model Summary table of Beneficiary identification on Implementation of Devolved Road Construction Projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.288[a]	0.083	0.079	0.401

a. *Predictors: (Constant), Beneficiary identification*

Table 4.13 suggest that Beneficiary identification on Implementation of Devolved Road Construction Projects were positively and those predicted by the regression model. In addition, 8.3% of the variation in the Implementation of Devolved Road Construction Projects is expounded by Beneficiary identification. The fidings concurs with those of Musyoka (2018) who found out variation in the Implementation of Devolved Road Construction Projects is explained by Beneficiary identification.

4.5.2.2 ANOVA of Beneficiary identification on Implementation of Devolved Road Construction Projects

The goal of the research was to see if the regression model was the best match for forecasting construction cost overruns in real estate projects following the implementation of the Contracting Process. Table 4.8 shows the results of the ANOVA.

Table 4.8: An ANOVA of the Regression of Beneficiary identification on Implementation of Devolved Road Construction Projects

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.098	1	4.098	25.521	0.000[b]
	Residual	45.446	283	0.161		
	Total	49.544	284			

a. *Dependent Variable Implementation of Devolved Road Construction Projects*

4.5.2.3 Coefficients for regression of Beneficiary Identification and Implementation of Devolved Road Construction Projects

The influence of Beneficiary Identification on Implementation of Devolved Road Construction Projects was sought.

Table 4.9: Coefficients for the Regression of Beneficiary Identification and Implementation of Devolved Road Construction Projects

Coefficients Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.323	0.199		16.730	0.000
	Beneficiary Identification	0.230	0.045	0.288	5.052	0.000

a. *Dependent Variable: Implementation of Devolved Road Construction Projects*

The simple linear regression finings presented in Table 4.9 show significance in the influence of Beneficiary Identification on Implementation of Devolved Road Construction Projects. The coefficient of the constant term (β_0 = 3.323; P-value=0.000 < 0.05) and Beneficiary Identification (β_1 = 0.230; P-value=0.000 < 0.05) were statistically significant. The regression model for Beneficiary Identification was $y=3.323 + 0.230X_1$ implying that for each unit of Beneficiary Identification, Implementation of County Government Devolved Road Construction Projects marginally changed by 0.230 unit s other predictors held constant. It was therefore concluded that Beneficiary Identification and Implementation of Devolved Road Construction Projects were positively and linearly related. The results are consistent with the findings of a study by Osman, M. A. and Kimutai, G. (2019) who found out that Beneficiary Identification and Implementation of Devolved Road Construction Projects were positively and linearly related.

4.6 Beneficiary Needs Assessment and Implementation of devolved road construction projects

Beneficiary Needs Assessment in this study i**s** defined as the identification of the various reasons a particular project should be undertaken in a particular area. The participants rated

their degree of agreement or disagreement with the five statements of the Beneficiary Needs Assessment on a Likert scale of 1 to 5, which was the study s second goal. For each response in each item, the findings were evaluated and presented using frequencies, percentages, averages, and standard deviation. Table 4.10 shows the item mean and standard deviation, as well as the item mean and standard deviation.

Table 4.10: Beneficiary Needs Assessment and Implementation of Devolved Road Construction Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Implementation of county devolved road construction projects enhances accessibility of the area by the locals	175(61.4%)	108(37.9%)	1(0.4%)	1(0.1%)	0(0.00%)	4.16	0.692
2. Implementation of county devolved road construction projects leads to reduction in criminal activities	91(31.9%)	145(50.9%)	29(10.2%)	15(5.3%)	5(1.8%)	4.17	0.704
3. Implementation of county devolved road construction projects leads to creation of business opportunities	79(27.7%)	163(57.2%)	13(4.6%)	20(7.0%)	10(3.5%)	4.29	0.657
4. Implementation of county devolved road construction projects leads to establishment of hospitals	99(34.7%)	126(44.2%)	33(11.6%)	18(6.3%)	9(3.2%)	4.34	0.650
5. Implementation of county devolved road construction projects leads to emergence of market centers.	64(22.5%)	175(61.4%)	16(5.6%)	18(6.3%)	12(4.2%)	4.34	0.614
Composite mean & Composite standard deviation						**4.30**	**0.910**

The results in Table 4.10 indicates that the aggregate mean and Standard deviation for Beneficiary needs assessment were 4.30 and 0.910 respectively; this suggests that a

majority of participants agreed (mean=4.30) that Beneficiary needs assessment influence Implementation of Devolved Road Construction Projects. Similarly, five statements were developed to measure the extent of influence of Beneficiary needs assessment on Implementation of Devolved Road Construction Projects.

Statement (1) that *Implementation of county devolved road construction projects enhances accessibility of the area by the locals* with a mean of 4.16 and a standard deviation of 0.692. The findings show that 175(61.4%) strongly agreed, 108(37.9%) agreed, 1(0.4%) were neutral, 1(0.4%) disagreed and 0(0.00%) strongly disagreed that Implementation of county devolved road construction projects enhances accessibility of the area by the locals. The mean value for the statement (4.16) was below the aggregate mean (4.30); This suggest that Implementation of county devolved road construction projects has not been adequately done in order to enhance accessibility of the area by the locals and hence negatively influence of Implementation of Devolved Road Construction Projects. Comparing the statements standard deviation (0.692) with aggregate (0.910) implies that there was a convergence opinion among the study participants. The study results supports finding by Musyoka, AN (2018) that adequate Implementation of county devolved road construction projects enhances accessibility of the area by the locals.

Statement (2) that *Implementation of county devolved road construction projects leads to reduction in criminal activities* had a mean of 4.17 and a standard deviation of 0.704. The findings show that 91(31.9%) strongly agreed, 145(50.9%) agreed, 29(10.2%) were neutral, 15(5.3%) disagreed and 5(1.8%) strongly disagreed that Implementation of county devolved road construction projects leads to reduction in criminal activities. The mean score for the statement (4.17) was below aggregate score (4.30) suggesting that Implementation of county devolved road construction projects has not been done enough reduce criminal activities and hence negatively influence of Implementation of Devolved Road Construction Projects. The standard deviations of 0.704 and 0.910 indicate convergence opinion among the study participants. The study results supports finding by Musyoka, A.N (2018) in his research who found out that adequate Implementation of county devolved road construction projects leads to reduction in criminal activities.

Statement (3) that *Implementation of county devolved road construction projects leads to creation of business opportunities* had a mean of 4.29 and a standard deviation of 0.657. From the findings, 79(27.7%) strongly agreed, 163(57.2%) agreed, 13(4.6%) were neutral,

20(7%) disagreed and 10(3.5%) strongly disagreed that Implementation of county devolved road construction projects leads to reduction in criminal activities. The statement had a mean (4.29) lower than the aggregate (4.30) implying that Implementation of county devolved road construction projects leads to creation of business opportunities and hence moderately influence of Implementation of Devolved Road Construction Projects. The standard deviations of 0.657 and aggregate of 0.910 implies convergence opinion among the study participants. The study results supports finding by Musyoka, A.N (2018) that Implementation of county devolved road construction projects leads to creation of business opportunities.

Statement (4) that *Implementation of county devolved road construction projects leads to establishment of hospitals* had a mean of 4.34 and a standard deviation of 0.650. This results indicate that out of 285 study participants, 99(34.7%) strongly agreed, 126(44.2%) agreed, 33(11.6%) were neutral, 18(6.3%) disagreed and 9(3.2%) strongly disagreed that Implementation of county devolved road construction projects leads to establishment of hospitals. This results shows that the line statement mean score of 4.34 was higher than the composite mean of 4.30; The implication of this result to the study is that Implementation of county devolved road construction projects leads to establishment of hospitals and hence positively influence of Implementation of County Government Devolved Road Construction Projects. The lower line item standard deviation of 0.650 than the composite standard deviation of 0.910 indicate that there was a convergence opinion among the study participants. The study results supports finding by Musyoka, A.N (2018) in his research that Implementation of county devolved road construction projects leads to establishment of hospitals.

Statement (5) that *Implementation of county devolved road construction projects leads to emergence of market centers.* had a mean of 4.34 and a standard deviation of 0.614. This results indicate that out of 285 study participants, 64(22.5%) strongly agreed, 175(61.4%) agreed, 16(5.6%) were neutral, 18(6.3%) disagreed and 12(4.2%) strongly disagreed that Implementation of county devolved road construction projects leads to emergence of market centers. This results shows that the line statement mean score of 4.34 was higher than the composite mean of 4.30; The implication of this result to the study is that Implementation of county devolved road construction projects leads to emergence of market centers and hence positively influence of Implementation of County Government

Devolved Road Construction Projects. The lower line item standard deviation of 0.614 than the composite standard deviation of 0.910 indicate that there was a convergence opinion among the study participants. The study results supports finding by Muriithi *et. all* (2021) in their research who found out that Implementation of county devolved road construction projects leads to emergence of market centers.

These findings were also corroborated by the key informants during the interview session who had this to say in line with beneficiary needs assessment and Implementation of County Government Devolved Road Construction Projects

" Due to Implementation of County Government Devolved Road Construction Projects we do have newly developed market centers, schools and emerging business opportunities to the community. . (Respondent 7).

4.6.1 Correlation analysis of Beneficiary needs assessment and Implementation of Devolved Road Construction Projects

The aim was to determine the relationship between Beneficiary needs assessment and Implementation of County Government Devolved Road Construction Projects. Testing the relationship between Beneficiary needs assessment and Implementation of Devolved Road Construction Projects was done using Pearson correlation coefficient at 95% level of confidence. The correlations results obtained are shown in Table 4.11

Table 4.11: Correlation analysis of Beneficiary needs assessment and Implementation of Devolved Road Construction Projects

Variable	Statistics	Implementation of County Government Devolved Road Construction Projects
Beneficiary needs assessment	**Pearson correlation**	**0 .296***
	Sig.(2-tailed)	**0.000**
	n	**285**

(n=285); *Correlation is significant at 0.05 level (2-tailed)

In order to determine the correlation between Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects, Pearson correlation coefficient

was run on the scores of each scale. The total scores of the scales were computed as a summation of the individual scores on each item by the respondent at 95% level of confidence. The study found a positive overall correlation(r=0.296) which was statistically significant as P-value 0.000<0.05(p=0.000). This implies that there is a significant relationship between Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects leading to rejection of the null hypothesis (H_0 : There is no significant relationship Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis, and hence the research findings conclude that there is a significant relationship between Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects. This finding is in agreement with findings by Muriithi *et. all* (2021)) found that there is a significant relationship between Beneficiaries needs assessment and Implementation of County Government Devolved Road Construction Projects.

4.6.2. Regression Analysis of Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects

Simple linear regression investigated how Beneficiaries needs assessment influence Implementation of Devolved Road Construction Projects. Simple regression model was used in order to establish how Beneficiaries needs assessment as a predictor predicted Implementation of Devolved Road Construction Projects

4.6.2.1 Model summary of Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects

The goal of the model summary was to see if Beneficiaries Needs Assessment is a predictor of Implementation of Devolved Road Construction Projects in a substantial or negligible way. Table 4.12 shows the overall findings of the regression model.

Table 4.12: Regression Model Summary table of Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.296[a]	0.088	0.085	0.3996

a. *Predictors: (Constant), Beneficiaries needs assessment*

Results in Table 4.12 suggest positive correlation(R=0.296) between Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects and those predicted by the regression model. In addition, 8.8% of the variation in the Implementation of County Government Devolved Road Construction Projects is explained by Beneficiaries needs assessment. The results are consistent with the findings of a study by Muriithi *et. all* (2021) who found out variation in the Implementation of County Government Devolved Road Construction Projects is explained by Beneficiaries needs assessment.

4.6.2.2 ANOVA of Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects

The goal of the study was to see if the regression model was the best match for forecasting construction cost overruns in real estate projects following the application of Beneficiaries needs assessment. Table 4.13 shows the results of the ANOVA.

Table 4.13: An ANOVA of the Regression of Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.352	1	4.352	27.252	0.000[b]
	Residual	45.192	283	0.160		
	Total	49.544	284			

a. *Dependent Variable Implementation of Devolved Road Construction Projects*

b. *Predictors: (Constant), Beneficiaries needs assessment*

Table 4.13 s ANOVA findings revealed that (F-statistics (1,283) =27.252 is significant, wit value of 0.000 0.05 suggesting that the predictor co-efficient is not zero. As a consequence regression model, the implementation of County Government Devolved Road Constr Projects is substantially better predicted. The findings are congruent with those of a stu Muriithi *et. all* (2021) who found out that Beneficiaries needs assessment significantly p better Implementation of Devolved Road Construction Projects.

4.6.2.3 Coefficients for regression of Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects

The aim of the study was to determine if Beneficiaries needs assessment influenced Implementation of Devolved Road Construction Projects**.** Table 4.14 presents findings obtained.

Table 4.14: Coefficients for the Regression of Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects

Coefficients Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	3.222	0.212		15.230	0.000
	Beneficiaries needs assessment	0.257	0.049	0.296	5.220	0.000

a. *Dependent Variable: Implementation of Devolved Road Construction Projects*

Table 4.14 s simple linear regression coefficients revealed that there was a substantial effect of Beneficiaries needs assessment on Implementation of Devolved Road Construction Projects. The coefficient of the constant term ($\beta_0 = 3.222$; P-value=0.000 < 0.05) and Beneficiaries needs assessment ($\beta_2 = 0.257$; P-value=0.000 < 0.05) were statistically significant. The regression model for Beneficiaries needs assessment was $y=3.222 + 0.257X_2$ implying that for each unit of Beneficiaries needs assessment, Implementation of Devolved Road Construction Projects marginally changed by 0.257 unit s other predictors held constant. It was therefore concluded that Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects were positively and linearly related. The results are consistent with the findings of a study by Osman M. A. & Kimutai, G. (2019) who found out that Beneficiaries needs assessment and Implementation of Devolved Road Construction Projects were positively and linearly related.

4.7 Beneficiary Involvement and Implementation of devolved road construction projects

Beneficiary involvement in this study i**s** defined as the participation of the local people or community in a project through employment of local people in projects, technical

personnel involvement, accountability of expenditures, identification of achievement milestones and stakeholder s engagement. It also includes the expected outcome and impact of the project.. This was the study s third goal, therefore participants were asked to rate their level of agreement or disagreement with the five assertions of Beneficiary engagement on a Likert scale of 1 to 5. For each response in each item, the findings were evaluated and presented using frequencies, percentages, averages, and standard deviation. Table 4.15 shows the item mean and standard deviation, as well as the item mean and standard deviation.

Table 4.15: Beneficiary involvement and Implementation of Devolved Road Construction Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Implementation of county government devolved construction road construction projects ensures employment of locals	150(52.6%)	106(37.2%)	25(8.8%)	2(0.7%)	2(0.7%)	4.35	0.528
2. Implementation of county government devolved roads construction projects leads to long term impact	92(32.3%)	160(56.1%)	15(5.3%)	13(4.6%)	5(1.8%)	4.34	0.611
3. Accountability of expenditures ensures Implementation of county government devolved road	84(29.5%)	146(51.2%)	28(9.8%)	27(9.5%)	0(0.00%)	4.41	0.602

	construction projects							
4.	Technical personnel engagement ensures quick Implementation of county government devolved road construction projects	97(34%)	148(51.9%)	8(2.8%)	31(10.9%)	1(0.4%)	4.63	0.539
5	Engagement of community leaders ensures quick Implementation of county government devolved roads construction projects	93(32.6%)	154(54%)	13(4.6%)	23(8.1%)	2(0.7%)	4.56	0.688
Composite mean & Composite standard deviation							**4.50**	**0.835**

The results in Table 4.15 indicates that the aggregate mean and Standard deviation for Beneficiary involvement were 4.50 and 0.835 respectively; which suggests that majority of participants agreed (mean=4.50) that Beneficiary involvement influence Implementation of Devolved Road Construction Projects. Similarly, five statements were developed to measure the extent of influence of Beneficiary involvement on Implementation of Devolved Road Construction Projects.

Statement (1) that *Implementation of devolved road construction projects ensures employment of locals* The standard deviation was 0.528 and the mean was 4.35. The findings show that out of 285 research participants, 150 (52.6%) highly agreed, 106 (37.2%) agreed, 25 (8.8%) were neutral, 2 (0.7%) disagreed, and 2 (0.7%) strongly disagreed that implementing county government decentralized building road construction projects assures local employment. The mean for the statement (4.35) was below the composite (4.50), implying that this result has implications for the study; that is, Implementation of county government devolved construction road construction

projects has not been effectively done in order to ensure employment of locals and hence negatively influence of Implementation of Devolved Road Construction Projects. Low standard deviations (0.528 and 0.835) indicate convergence opinion among the study participants. The study results supports finding by Osman M. A. & Kimutai, G. (2019) in their research who found out that effective implementation of county government devolved construction road construction projects ensures employment of locals.

Statement (2) that *Implementation of devolved roads construction projects leads to long term impact* had a mean of 4.34 and a standard deviation of 0.611. This results indicate that out of 285 study participants, 92(32.3%) strongly agreed, 160(56.1%) agreed, 15(5.3%) were neutral, 13(4.6%) disagreed and 5(1.8%) strongly disagreed that implementation of county government devolved roads construction projects leads to long term impact. The mean for the statement (4.34) was below the aggregate (4.50),an indication that implementation of county government devolved roads construction projects leading to long term impact has not been effectively done and hence negatively influence of Implementation of County Government Devolved Road Construction Projects. The lower line item standard deviation of 0.611 than the composite standard deviation of 0.835 indicate that there was a convergence opinion among the study participants. The study results supports finding by Osman M. A. & Kimutai, G. (2019) in their research who found out that effective implementation of county government devolved roads construction projects leads to long term impact.

Statement (3) that *Accountability of expenditures ensures Implementation of county government devolved road construction projects* had a mean of 4.41 and a standard deviation of 0.602. This results indicate that out of 285 study participants, 84(29.5%) strongly agreed, 146(51.2%) agreed, 28(9.8%) were neutral, 27(9.5%) disagreed and 0(0.00%) strongly disagreed that Accountability of expenditures ensures Implementation of county government devolved road construction projects. This results shows that the line statement mean score of 4.41 was slightly lower than the composite mean of 4.50; The implication of this result to the study is that Accountability of expenditures moderately influence of Implementation of County Government Devolved Road Construction Projects. The lower line item standard deviation of 0.602 than the composite standard deviation of 0.835 indicate that there was a convergence opinion among the study participants. The study results supports finding by Musyoka, A.N (2018) in their

research that effective Accountability of expenditures positively influence of Implementation of County Government Devolved Road Construction Projects.

Statement (4) that *Technical personnel engagement ensures quick Implementation of county government devolved road construction projects* had a mean of 4.63 and a standard deviation of 0.539. This results indicate that out of 285 study participants, 97(34%) strongly agreed, 148(51.9%) agreed, 8(2.8%) were neutral, 31(10.9%) disagreed and 1(0.4%) strongly disagreed that technical personnel engagement ensures quick Implementation of county government devolved road construction projects. This results shows that the line statement mean score of 4.63 was higher than the composite mean of 4.50; The implication of this result to the study is that technical personnel engagement ensures quick Implementation of county government devolved road construction projects. The lower line item standard deviation of 0.539 than the composite standard deviation of 0.835 indicate that there was a convergence opinion among the study participants. The study results supports finding by Yeri, T. M. (2018) in his research who found out that effective technical personnel engagement ensures quick Implementation of county government devolved road construction projects

Statement (5) that *Engagement of community leaders ensures quick Implementation of county government* had a mean of 4.56 and a standard deviation of 0.688. This results indicate that out of 285 study participants, 93(32.6%) strongly agreed, 154(54%) agreed, 13(4.6%) were neutral, 23(8.1%) disagreed and 2(0.7%) strongly disagreed that engagement of community leaders ensures quick Implementation of county government. This results shows that the line statement mean score of 4.56 was higher than the composite mean of 4.50; The implication of this result to the study is that engagement of community leaders ensures quick Implementation of county government devolved road construction projects. The lower line item standard deviation of 0.688 than the composite standard deviation of 0.835 indicate that there was a convergence opinion among the study participants. The study results supports finding by Musyoki, S. M. (2016) in their research who found out that effective engagement of community leaders ensures quick Implementation of county government devolved road construction projects.

These findings were also corroborated by the key informants during the interview session who had this to say in line with beneficiary involvement and Implementation of County Government Devolved Road Construction Projects

" whenever we get involved and engaged, Implementation of County Government Devolved Road Construction Projects is much more quick thereby enabling quick Implementation of county government devolved road construction projects. . (Respondent 5).

4.7.1 Correlation analysis of Beneficiary involvement and Implementation of Devolved Road Construction Projects

The study sought to examine the relationship between Beneficiary involvement and Implementation of County Government Devolved Road Construction Projects. Pearson correlation coefficient was used to test the relationship between Beneficiary involvement and Implementation of County Government Devolved Road Construction Projects at 95% level of confidence. The correlations results obtained are shown in Table 4.16

Table 4.16: Correlation analysis of Beneficiary involvement and Implementation of Devolved Road Construction Projects

Variable	Statistics	Implementation of County Government Devolved Road Construction Projects
Beneficiary involvement	Pearson correlation	0 .551*
	Sig.(2-tailed)	0.000
	n	285

(n=285); *Correlation is significant at 0.05 level (2-tailed)

In order to determine the correlation between Beneficiary involvement and Implementation of Devolved Road Construction Projects, Pearson correlation coefficient

was run on the scores of each scale. The total scores of the scales were computed as a summation of the individual scores on each item by the respondent at 95% level of confidence. The study found a positive overall correlation(r=0.551) which was statistically significant as P-value 0.000<0.05(p=0.000). This implies that there is a significant relationship between Beneficiaries involvement and Implementation of Devolved Road Construction Projects leading to rejection of the null hypothesis (H_0 : There is no significant relationship Beneficiaries involvement and Implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis, and hence the research findings conclude that there is a significant relationship between Beneficiary involvement and Implementation of Devolved Road Construction Projects. This finding is in agreement with findings by Muriithi *et. all* (2021) found that there is a significant relationship between Beneficiaries involvement and Implementation of Devolved Road Construction Projects.

4.7.2. Regression Analysis of Beneficiaries involvement on Implementation of Devolved Road Construction Projects

Simple linear regression was adopted to investigate how Beneficiaries involvement influence Implementation of Devolved Road Construction Projects. The rational of using the simple regression model was to establish how Beneficiaries involvement as a predictor significantly or insignificantly predicted Implementation of Devolved Road Construction Projects

4.7.2.1 Model summary of Beneficiaries involvement on Implementation of Devolved Road Construction Projects

The goal of the model summary was to see if Beneficiaries engagement is a predictor of Implementation of Devolved Road Construction Projects, and if yes, how important it is. Table 4.17 shows the summary findings of the regression model.

Table 4.17: Regression Model Summary table of Beneficiaries involvement on Implementation of Devolved Road Construction Projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	0.551[a]	0.304	0.301	0.34908

a. Predictors: (Constant), Beneficiaries involvement

The findings in Table 4.17 suggest positive correlation (R=0.551) between Beneficiaries involvement on Implementation of Devolved Road Construction Projects and those predicted by the regression model. In addition, 30.4% of the variation in the Implementation of Devolved Road Construction Projects is explained by Beneficiary involvement. The results are consistent with the findings of a study by Osman M. A. & Kimutai, G. (2019) who found out variation in the Implementation of Devolved Road Construction Projects is explained by Beneficiaries involvement.

4.7.2.2 ANOVA of Beneficiaries involvement on Implementation of Devolved Road Construction Projects

The goal of the study was to see if the regression model was the best match for forecasting construction cost overruns in real estate projects when beneficiaries were involved. Table 4.18 shows the results of the ANOVA.

Table 4.18: An ANOVA of the Regression of Beneficiaries involvement on Implementation of Devolved Road Construction Projects

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.059	1	15.059	123.585	0.000[b]
	Residual	34.485	283	0.122		
	Total	49.544	284			

a. *Dependent Variable Implementation of Devolved Road Construction Projects*

b. *Predictors: (Constant), Beneficiaries involvement*

Table 4.18 s ANOVA findings revealed that (F-statistics (1,283) =123.585 is significant, with a P-value of 0.000 0.05 suggesting that the predictor co-efficient is not zero. As a consequence, the regression model produces a considerably better forecast of Devolved Road Construction Projects Implementation. The findings are in line with those of a research conducted by Osman M. A. & Kimutai, G. (2019) who found out that Beneficiaries involvement significantly predict better Implementation of Devolved Road Construction Projects.

4.7.2.3 Coefficients for regression of Beneficiaries involvement and Implementation of Devolved Road Construction Projects

The goal of the study was to see if there was any impact of Beneficiaries involvement on Implementation of Devolved Road Construction Projects**.** Table 4.19 shows the results of the regression coefficients.

Table 4.19: Coefficients for the Regression of Beneficiaries involvement and Implementation of Devolved Road Construction Projects

Coefficients					
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**
		B	**Std. Error**	**Beta**	
1	(Constant)	1.793	0.228		7.860
	Beneficiaries involvement	0.567	0.051	0.551	11.117

a. *Dependent Variable: Implementation of Devolved Road Construction Projects*

The simple linear regression coefficients result from Table 4.19 indicated that there w influence of Beneficiaries involvement on Implementation of Devolved Road Construc The coefficient of the constant term (β_0 = 1.793; P-value=0.000 < 0.05) and Benefi assessment (β_3 = 0.567; P-value=0.000 < 0.05) were statistically significant. The regress Beneficiaries involvement was $y=1.793 + 0.567X_3$ implying that for each unit of involvement, Implementation of Devolved Road Construction Projects marginally char units other predictors held constant. It was therefore concluded that Beneficiaries inv Implementation of Devolved Road Construction Projects were positively and linearly results are consistent with the findings of a study by Muriithi *et. all* (2021) who fc Beneficiaries involvement and Implementation of Devolved Road Construction P positively and linearly related.

4.8 Beneficiary Feedback and Implementation of devolved road construction projects

Beneficiary feedback in this study refers to the different ways the relevant stakeholders and community members give their opinions relating to the project s activities through public meetings to discuss the projects, progress reports of the projects and focus groups meetings. To answer the study s fourth goal, participants were asked to rate their degree of agreement or disagreement with items on Beneficiary feedback on a Likert scale of 1 to 5. For each response in each item, the findings were evaluated and presented using frequencies, percentages, averages, and standard deviation. Table 4.20 shows the item mean and standard deviation, as well as the item mean and standard deviation.

Table 4.20: Beneficiary feedback and Implementation of Devolved Road Construction Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Having public meetings to discuss projects ensures smooth implementation of county government devolved roads construction projects.	157(35.1%)	113(39.6%)	8(2.8%)	7(2.5%)	0(0.00%)	4.59	0.648
2. Implementation of county government devolved roads construction projects leads to increase in per capita income hence raising living standards.	100(35.1%)	144(50.5%)	13(4.6%)	25(8.8%)	3(1.1%)	4.24	0.801
3. Generation of projects progress reports projects ensures smooth implementation of county government devolved roads construction projects	83(29.1%)	156(54.7%)	19(6.7%)	20(7.0%)	7(2.5%)	4.17	0.840
4. Having focus groups meetings to ensures smooth implementation of county government devolved roads construction projects	97(34%)	146(51.2%)	19(6.7%)	21(7.4%)	2(0.7%)	4.28	0.671
5. Generation of substantial completion reports projects ensures smooth implementation of county government devolved roads construction projects	80(28.1%)	170(59.6%)	16(5.6%)	15(5.3%)	4(1.4%)	4.27	0.706
Composite mean & Composite standard deviation						**4.29**	**0.969**

The results in Table 4.20 indicates that the composite mean and composite Standard deviation for Beneficiary feedback were 4.29 and 0.969 respectively; implying that using the Likert scale a majority of participants agreed (mean=4.29) that Beneficiary feedback influence Implementation of Devolved Road Construction Projects. Similarly, five statements were developed to measure the extent of influence of Beneficiary feedback on Implementation

of Devolved Road Construction Projects.

Statement (1) that *Having public meetings to discuss projects ensures smooth implementation of county government devolved roads construction projects* had a mean of 4.59 and a standard deviation of 0.648. This results indicate that out of 285 study participants, 157(55.1%) strongly agreed, 113(39.6%) agreed, 8(2.8%) were neutral, 7(2.5%) disagreed and 0(0.00%) strongly disagreed that having public meetings to discuss projects ensures smooth implementation of county government devolved roads construction projects. This results shows that the line statement mean score of 4.59 was higher than the composite mean of 4.29; The implication of this result to the study is that having public meetings to discuss projects positively ensures smooth implementation of county government devolved roads construction projects. The lower line item standard deviation of 0.648 than the composite standard deviation of 0.969 indicate that there was a convergence opinion among the study participants. The study results supports finding by M arimi, A. G. (2019) in their research who found out that having public meetings to discuss projects ensures smooth implementation of devolved roads construction projects.

Statement (2) that *Implementation of devolved roads construction projects leads to increase in per capita income hence raising living standards*. had a mean of 4.24 and a standard deviation of 0.801. This results indicate that out of 285 study participants, 100(55.1%) strongly agreed, 144(50.5%) agreed, 13(4.6%) were neutral, 25(8.8%) disagreed and 3(1.1%) strongly disagreed that implementation of devolved roads construction projects leads to increase in per capita income hence raising living standards. This results shows that the line statement mean score of 4.24 was slightly lower than the composite mean of 4.29; The implication of this result to the study is that implementation of devolved roads construction projects moderately leads to increase in per capita income hence raising living standards. The lower line item standard deviation of 0.801 than the composite standard deviation of 0.969 indicate that there was a convergence opinion among the study participants. The study results supports finding by Bosire, L. K. (2015) in their research that implementation of devolved roads construction projects moderately leads to increase in per capita income hence raising living standards.

Statement (3) that *Generation of projects progress reports ensures smooth implementation of devolved roads construction projects*. had a mean of 4.17 and a standard deviation of 0.840. This results indicate that out of 285 study participants, 83(29.1%) strongly agreed, 156(54.7%) agreed, 19(6.7%) were neutral, 20(7.0%) disagreed and 7(2.5%) strongly disagreed that generation of projects progress reports ensures smooth implementation of devolved roads construction projects. This results shows that the line statement mean score of 4.17 was lower than the composite mean of 4.29; The implication of this result to the study is that generation of projects progress reports has not been adequately done to ensures smooth implementation of devolved roads construction projects. The lower line item standard deviation of 0.840 than the composite standard deviation of 0.969 indicate that there was a convergence opinion among the study participants. The study results supports finding by Osman M. A. & Kimutai, G. (2019) in their research that generation of projects progress reports adequately ensures smooth implementation of devolved roads construction projects.

Statement (4) that *Having focus groups meetings ensures smooth implementation of devolved roads construction projects*. had a mean of 4.28 and a standard deviation of 0.671. This results indicate that out of 285 study participants, 97(34%) strongly agreed, 146(51.2%) agreed, 19(6.7%) were neutral, 21(7.4%) disagreed and 2(0.7%) strongly disagreed that having focus groups meetings ensures smooth implementation of devolved roads construction projects. This results shows that the line statement mean score of 4.28 was nearly the same as than the composite mean of 4.29; The implication of this result to the study is that having focus groups meetings positively ensures smooth implementation of devolved roads construction projects. The lower line item standard deviation of 0.671 than the composite standard deviation of 0.969 indicate that there was a convergence opinion among the study participants. The study results supports finding by Fonshell, J. (2018) in their research who found out that having focus groups meetings positively ensures smooth implementation of devolved roads construction projects.

Statement (5) that *Generation of substantial completion project reports ensures smooth implementation of devolved roads construction projects*. had a mean of 4.27 and a standard deviation of 0.706. This results indicate that out of 285 study participants, 80(28.1%) strongly agreed, 170(59.6%) agreed, 16(5.6%) were neutral, 15(5.3%) disagreed and 4(1.4%) strongly disagreed that generation of substantial completion project reports ensures smooth implementation of county government devolved roads construction projects. This

results shows that the line statement mean score of 4.27 was nearly the same as than the composite mean of 4.29; The implication of this result to the study is that generation of substantial completion project reports positively ensures smooth implementation of county government devolved roads construction projects. The lower line item standard deviation of 0.706 than the composite standard deviation of 0.969 indicate that there was a convergence opinion among the study participants. The study results supports finding by Adek, R. T. (2016) in their research who found out that generation of substantial completion project reports ensures smooth implementation of devolved roads construction projects. These findings were also corroborated by the key informants during the interview session who had this to say in line with beneficiary feedback and Implementation of Devolved Road Construction Projects

> *" Available project reports ensures smooth implementation of devolved roads construction projects. . (Respondent 2).*

4.8.1 Correlation analysis of Beneficiary feedback and Implementation of Devolved Road Construction Projects

The goal of the study was to look at the link between positive feedback and the implementation of devolved road construction projects. At a 95% level of confidence, the Pearson correlation coefficient was employed to examine the association between Beneficiary feedback and Implementation of Devolved Road Construction Projects. Table 4.21 shows the findings of the correlations.

Table 4.21: Correlation analysis of Beneficiary feedback and Implementation of Devolved Road Construction Projects

Variable	Statistics	Implementation of County Government Devolved Road Construction Projects
Beneficiary feedback	Pearson correlation	0 .127*
	Sig.(2-tailed)	0.000
	n	285

(n=285); *Correlation is significant at 0.05 level (2-tailed)

In order to determine the correlation between Beneficiary feedback and Implementation of

Devolved Road Construction Projects, Pearson correlation coefficient was run on the scores of each scale. The total scores of the scales were computed as a summation of the individual scores on each item by the respondent at 95% level of confidence. The study found a positive overall correlation(r=0.127) P-value 0.0320.05(p=0.000) was statistically significant. Implying the relationship between Beneficiaries feedback and Devolved Road Construction projects was significant, resulting in rejection of the null hypothesis (H0: There is no significant relationship between Beneficiaries feedback and Devolved Road Construction Projects) and acceptance of the alternative hypothesis, and thus the research findings conclude that there is a significant relationship between Beneficiaries feedback and Devolved Road Construction Projects. Beneficiary feedback and Implementation of Devolved Road Construction Projects. This finding is in agreement with findings by Osman, M. A. & Kimutai, G. (2019). found that there is a significant relationship between Beneficiaries feedback and Implementation of Devolved Road Construction Projects.

4.8.2. Regression Analysis of Beneficiaries feedback on Implementation of Devolved Road Construction Projects

To find out how Beneficiaries feedback affects the implementation of devolved road construction projects, researchers used simple linear regression. The purpose of applying a simple regression model was to see if Beneficiaries feedback was a significant predictor of Implementation of Devolved Road Construction Projects or not.

4.8.2.1 Model summary of Beneficiaries feedback on Implementation of County Government Devolved Road Construction Projects

The goal of the model summary was to see if Beneficiaries input was a predictor of Implementation of County Government Devolved Road Construction Projects in a substantial or negligible way. Table 4.22 shows the summary findings of the regression model.

Table 4.22: Regression Model Summary table of Beneficiaries feedback on Implementation of Devolved Road Construction Projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.127[a]	0.016	0.013	0.41502

a. *Predictors: (Constant), Beneficiaries involvement*

From the model summary, the relationship between Beneficiaries feedback and Implementation of County Government Devolved Road Construction Projects was positive as denoted by correlation coefficient value of (R=0.551). In addition, 1.6 % of the variation in the Implementation of Devolved Road Construction Projects is explained by Beneficiary feedback. The findings agree with Muriithi *et. all* (2021) who found out variation in the Implementation of County Government Devolved Road Construction Projects is explained by Beneficiaries feedback.

4.8.2.2 ANOVA of Beneficiaries feedback on Implementation of County Government Devolved Road Construction Projects

The goal of the study was to see if the regression model is the best match for forecasting construction cost overruns in real estate projects after including feedback from beneficiaries. Table 4.23 shows the results of the ANOVA.

Table 4.23: An ANOVA of the Regression of Beneficiaries feedback on Implementation of Devolved Road Construction Projects

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.799	1	0.799	4.639	0.032[b]
	Residual	48.745	283	0.172		
	Total	49.544	284			

a. *Dependent Variable Implementation of Devolved Road Construction Projects*

b. Predictors: (Constant), Beneficiaries feedback

Table 4.23 s ANOVA findings revealed that (F-statistics (1,283) =4.639 is significant, with a P-value of 0.000 0.05 suggesting that the coefficient value for the predictor variable is non-zero. As a consequence, the regression model produces a considerably better forecast of Devolved Road Construction Projects Implementation. The findings are in line with those of a research conducted by Muriithi *et. all* (2021) who found out that Beneficiaries feedback significantly predict better Implementation of County Government Devolved Road Construction Projects.

4.8.2.3 Coefficients for regression of Beneficiaries feedback and Implementation of Devolved Road Construction Projects

The focus of the study was to determine if Beneficiaries feedback influences Implementation of Devolved Road Construction Projects. Table 4.24 presents regression findings.

Table 4.24: Coefficients for the Regression of Beneficiaries feedback and Implementation of Devolved Road Construction Projects

Coefficients						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	3.898	0.197		19.771	0.000
	Beneficiaries feedback	0.098	0.045	0.127	2.154	0.032

a. *Dependent Variable: Implementation of Devolved Road Construction Projects*

The simple linear regression findings in Table 4.24 show significant influence of Beneficiaries feedback on Implementation of Devolved Road Construction Projects. The coefficient of the constant term ($\beta_0 = 3.898$; P-value=0.000 < 0.05) and Beneficiaries feedback ($\beta_4 = 0.098$; P-value=0.032< 0.05). The regression model for Beneficiaries feedback was $y=3.898 + 0.098X_4$ implying that for each unit of Beneficiaries feedback, Implementation of County Government Devolved Road Construction Projects marginally changed by 0.098 units other predictors held constant. It was therefore concluded that Beneficiaries feedback and Implementation of Devolved Road Construction Projects were positively and linearly related. The results are consistent with the findings of a study by Muriithi *et. all* (2021) who found out that Beneficiaries feedback and Implementation of Devolved Road Construction Projects were positively and linearly related.

4.9 Beneficiary Satisfaction and Implementation of devolved road construction projects

Beneficiary satisfaction in this study refers to how well the project meets the needs of the relevant stakeholders and those of the local people. in order to answer the fifth goal of the study, participants were asked to rate their degree of agreement or disagreement with the five assertions of Beneficiary satisfaction on a Likert scale of 1 to 5. For each response in each item, the findings were evaluated and presented using frequencies, percentages, averages, and standard deviation. Table 4.25 shows the item mean and standard deviation, as well as

the item mean and standard deviation.

Table 4.25: Beneficiary Satisfaction and Implementation of Devolved Road Construction Projects

STATEMENTS	SA	A	N	D	SD	Mean	Std. dev
1. Implementation of county government devolved road construction projects ensures adequate road network to the community	166(58.2%)	102(35.8%)	11(3.9%)	5(1.8%)	1(0.4%)	4.33	0.625
2. Knowledge on projects inputs ensures smooth implementation of county government devolved roads construction projects	85(29.8%)	150(52.6%)	24(8.4%)	20(7.0%)	6(2.1%)	4.25	0.652
3. Implementation of county government devolved roads construction projects enhances stakeholder satisfaction.	109(38.2%)	132(46.3%)	26(9.1%)	16(5.6%)	2(0.7%)	4.22	0.728
4. Generation of substantial completion reports ensures smooth implementation of county government devolved roads construction projects	92(32.3%)	125(43.9%)	35(12.3%)	30(10.5%)	3(1.1%)	4.24	0.675
5. Community opinion about the projects enhances quick implementation of county government devolved roads construction projects	75(26.3%)	157(55.1%)	29(10.2%)	18(6.3%)	6(2.1%)	4.59	0.560
Composite mean & Composite standard deviation						**4.36**	**0.985**

The results in Table 4.25 indicates that the composite mean and composite Standard deviation

for Beneficiary satisfaction were 4.36 and 0.985 respectively; implying that using the Likert scale a majority of participants agreed (mean=4.36) that Beneficiary satisfaction influence Implementation of County Government Devolved Road Construction Projects. Similarly, five statements were developed to measure the extent of influence of Beneficiary satisfaction on Implementation of County Government Devolved Road Construction Projects.

Statement (1) that *Implementation of devolved road construction projects ensures adequate road network to the community* had a mean of 4.33 and a standard deviation of 0.625. This results indicate that out of 285 study participants, 166(58.2%) strongly agreed, 102(35.8%) agreed, 11(3.9%) were neutral, 5(1.8%) disagreed and 1(0.4%) strongly disagreed that implementation of devolved road construction projects ensures adequate road network to the community. This results shows that the line statement mean score of 4.33 was slightly lower than the composite mean of 4.36; The implication of this result to the study is that implementation of devolved road construction projects moderately ensures adequate road network to the community. The lower line item standard deviation of 0.625 than the composite standard deviation of 0.985 indicate that there was a convergence opinion among the study participants. The study results supports finding by Muriithi *et. all* (2021) in their research who found out that implementation of devolved road construction projects ensures adequate road network to the community.

Statement (2) that *Knowledge on projects inputs ensures smooth implementation of county government devolved roads construction projects* had a mean of 4.25 and a standard deviation of 0.652. This results indicate that out of 285 study participants, 85(29.8%) strongly agreed, 150(52.6%) agreed, 24(8.4%) were neutral, 20(7.0%) disagreed and 6(2.1%) strongly disagreed that knowledge on projects inputs ensures smooth implementation of devolved roads construction projects. This results shows that the line statement mean score of 4.25 was lower than the composite mean of 4.36; The implication of this result to the study is that there is need for Knowledge on projects inputs in order to ensure smooth implementation of county government devolved roads construction projects. The lower line item standard deviation of 0.652 than the composite standard deviation of 0.985 indicate that there was a convergence opinion among the study participants. The study results supports finding by Yeri, T. M. (2018) in their research who found out that adequate knowledge on projects inputs ensures smooth implementation of devolved roads construction projects

Statement (3) that *Implementation of devolved roads construction projects enhances*

stakeholder satisfaction. had a mean of 4.22 and a standard deviation of 0.728. This results indicate that out of 285 study participants, 109(38.2%) strongly agreed, 130(46.3%) agreed, 26(9.1%) were neutral, 16(5.6%) disagreed and 2(0.7%) strongly disagreed that implementation of devolved roads construction projects enhances stakeholder satisfaction. This results shows that the line statement mean score of 4.22 was lower than the composite mean of 4.36; The implication of this result to the study is that there is need for implementation of devolved roads construction projects in order to enhance stakeholder satisfaction. The lower line item standard deviation of 0.728 than the composite standard deviation of 0.985 indicate that there was a convergence opinion among the study participants. The study results supports finding by Mageto *et. all* 2015 in their research that adequate implementation of devolved roads construction projects enhances stakeholder satisfaction.

Statement (4) that *Generation of substantial completion reports ensures smooth implementation of devolved roads construction projects*. had a mean of 4.24 and a standard deviation of 0.675. This results indicate that out of 285 study participants, 92(32.3%) strongly agreed, 125(43.9%) agreed, 35(12.3%) were neutral, 30(10.5%) disagreed and 3(1.1%) strongly disagreed that generation of substantial completion reports ensures smooth implementation of county government devolved roads construction projects. This results shows that the line statement mean score of 4.24 was lower than the composite mean of 4.36; The implication of this result to the study is that there is need for generation of substantial completion reports in order to ensure smooth implementation of county government devolved roads construction projects. The lower line item standard deviation of 0.675 than the composite standard deviation of 0.985 indicate that there was a convergence opinion among the study participants. The study results supports finding by Nkunda, P.G (2018) in their research that adequate generation of substantial completion reports ensures smooth implementation of devolved roads construction projects.

Statement (5) that *Community opinion about the projects enhances quick implementation of devolved roads construction projects*. had a mean of 4.59 and a standard deviation of 0.560. This results indicate that out of 285 study participants, 75(26.3%) strongly agreed, 157(55.1%) agreed, 29(10.2%) were neutral, 18(6.3%) disagreed and 6(2.1%) strongly disagreed that community opinion about the projects enhances quick implementation of devolved roads construction projects. This results shows that the line statement mean score of 4.59 was higher than the composite mean of 4.36; The implication of this result to the study is that

there is need for community opinion about the projects positively enhances quick implementation of county government devolved roads construction projects. The lower line item standard deviation of 0.560 than the composite standard deviation of 0.985 indicate that there was a convergence opinion among the study participants. The study results supports finding by Muriithi *et. all* (2021) in their research who found out that community opinion about the projects positively enhances quick implementation of county government devolved roads construction projects. These findings were also corroborated by the key informants during the interview session who had this to say in line with beneficiary feedback and Implementation of County Government Devolved Road Construction Projects

" our opinion as a community about county road projects ensures smooth implementation of county government devolved roads construction projects. . (Respondent 8).

4.9.1 Correlation analysis of Beneficiary Satisfaction and Implementation of Devolved Road Construction Projects

The goal of the study was to see if there was a link between beneficiary satisfaction and the implementation of devolved road construction projects. At a 95% level of confidence, the Pearson correlation coefficient was utilized to examine the association between Beneficiary satisfaction and Implementation of Devolved Road Construction Projects. Table 4.26 shows the findings of the correlations.

Table 4.26: Correlation analysis of Beneficiary satisfaction and Implementation of Devolved Road Construction Projects

Variable	Statistics	Implementation of County Government Devolved Road Construction Projects
Beneficiary satisfaction	Pearson correlation	0 .140*
	Sig.(2-tailed)	0.018
	n	285

(n=285); *Correlation is significant at 0.05 level (2-tailed)

In order to determine the correlation between Beneficiary satisfaction and Implementation of Devolved Road Construction Projects, Pearson correlation coefficient was run on the scores of each scale. The total scores of the scales were computed as a summation of the individual

scores on each item by the respondent at 95% level of confidence. The study found a positive overall correlation(r=0.140) suggesting significance as P-value 0.018<0.05(p=0.000). Implying significant link between Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects, resulting in rejection of the null hypothesis (H_0: There is no significant relationship between Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis, leading to the conclusion that there is a significant relationship between Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects. This conclusion is consistent with Muriithi et al (2021) findings, which demonstrated a substantial link between Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects.

4.9.2. Regression Analysis of Beneficiaries satisfaction on Implementation of Devolved Road Construction Projects

To find out how beneficiary satisfaction affects the implementation of devolved road construction projects, researchers used simple linear regression. The purpose of applying the simple regression model was to see if beneficiary satisfaction as a predictor of implementation of County Government Devolved Road Construction Projects was significant or not.

4.9.2.1 Model summary of Beneficiaries Satisfaction on Implementation of Devolved Road Construction Projects

The goal of the model summary was to see if Beneficiaries satisfaction is a predictor of Implementation of Devolved Road Construction Projects, and if yes, how important it is. Table 4.27 shows the overall findings of the regression model.

Table 4.27: Regression Model Summary table of Beneficiaries Satisfaction on Implementation of County Government Devolved Road Construction Projects

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.140[a]	0.020	0.016	0.41427

a. *Predictors: (Constant), Beneficiaries satisfaction*

As shown in Table 4.27, there is a positive correlation(R=0.140) between Beneficiaries satisfaction on Implementation of Devolved Road Construction Projects. Additonally, 2 % of change in implementation of County Government Devolved Road Construction Projects

is explained by Beneficiary satisfaction. The results are consistent with the findings of a study by Nkunda, P.G (2018) who found out variation in the Implementation of Devolved Road Construction Projects is explained by Beneficiaries satisfaction.

4.9.2.2 ANOVA of Beneficiaries satisfaction on Implementation of Devolved Road Construction Projects

The goal of the study was to see if the regression model is the best match for forecasting construction cost overruns in real estate projects after taking into account beneficiary satisfaction. Table 4.28 shows the results of the ANOVA.

Table 4.28: An ANOVA of the Regression of Beneficiaries Satisfaction on Implementation of Devolved Road Construction Projects

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.974	1	0.974	5.677	0.018[b]
	Residual	48.569	283	0.172		
	Total	49.544	284			

a. *Dependent Variable Implementation of Devolved Road Construction Projects*

b. Predictors: (Constant), Beneficiaries satisfaction

Table 4.28is ANOVA findings revealed that (F-statistics (1,283) =5.677 is significant, with a P-value of 0.018 0.05 suggesting that coefficients for independent variable was not zero. As a consequence, the regression model produces a considerably better forecast of Devolved Road Construction Projects Implementation. The findings are in line with those of a research conducted by Muriithi et. all (2021) who found out that Beneficiaries satisfaction significantly predict better Implementation of Devolved Road Construction Projects**.**

4.9.2.3 Coefficients for regression of Beneficiaries Satisfaction and Implementation of Devolved Road Construction Projects

The goal of the study was to see if beneficiary satisfaction hasian impaction the implementation of devolved road construction projects.iTable 4.29 shows the regression coefficientsi findings.

Table 4.29: Coefficients for the Regression of Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects

Model		Coefficients			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	3.769	0.233		16.157	0.000

Beneficiaries satisfaction	0.128	0.054	0.140	2.383	0.018

a. *Dependent Variable: Implementation of Devolved Road Construction Projects*

The simple linear regression coefficients findings in Table 4.29 showing Beneficiaries satisfaction positively and significantly influences Implementation of County Government Devolved Road Construction Projects. The coefficient of the constant term (β_0 = 3.769; P-value=0.000 < 0.05) and Beneficiaries satisfaction (β_5 = 0.128; P-value=0.018< 0.05) were statistically significant. The regression model for Beneficiaries satisfaction was y=3.769 + $0.128X_5$ suggesting that a unit improvement of Beneficiaries satisfaction, Implementation of Devolved Road Construction Projects marginally changed by 0.128 unit s other predictors held constant. It was therefore concluded that Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects were positively and linearly related. The results are consistent with the findings of a study by Muriithi *et. all* (2021) who found out that Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects were positively and linearly related.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The facts, conclusions, and suggestions are summarized in this chapter. The outcomes for each of researches hypotheses are reported in the summary of the study for the five study objective. The research goals led the results offered in this part, which were informed by the report s findings, analysis, interpretation, and discussions. The study s contribution to knowledge is assessed based on the findings reached. The findings are used to provide policy and practice recommendations, as well as methodology recommendations and proposals for future study.

5.2. Summary of Findings

In this section, the study presents the summary of the research findings. The presentation was guided by the objectives of the study.

5.2.1. Beneficiaries identification and Implementation of Devolved Road Construction Projects

The first research objective was to examine the extent to which Beneficiaries identification influence implementation of Devolved Road Construction Projects. The composite mean and composite Standard deviation for Beneficiary identification were 4.35 and 0.925 respectively; implying that using the Likert scale, the respondents agreed that Beneficiaries identification influence implementation of Devolved Road Construction Projects. The overall correlation coefficient for Beneficiaries identification and implementation of Devolved Road Construction Projects was found to be 0.288 with a p-value of $0.000 < 0.05$ implying that from the views of participants in the study the results indicated that there was a significant relationship between Beneficiaries identification and implementation of Devolved Road Construction Projects; leading to rejection of the null hypothesis (H_0: There is no significant relationship between Beneficiaries identification and implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis. The ANOVA results from the study participant s views indicated that the regression model for Beneficiaries identification results was significantly better prediction of implementation of Devolved Road Construction Projects (1,283) =25.521 and *p-value*=0.000<0.05). The simple linear regression coefficients result indicated that the test of β_1=0.230 (coefficient of Beneficiaries identification) statistics revealed that there was sufficient evidence that Beneficiaries identification was linearly implementation of Devolved Road Construction

Projects (Value of test statistics: t=16.730; *p-value* =0.000<0.05).

5.2.2. Beneficiaries Needs Assessment and Implementation of Devolved Road Construction Projects

The second research objective was to examine the extent to which Beneficiaries needs assessment influence implementation of Devolved Road Construction Projects. The composite mean and composite Standard deviation for Beneficiaries needs assessment were 4.30 and 0.910 respectively; implying that using the Likert scale, the respondents agreed that Beneficiaries needs assessment influence implementation of Devolved Road Construction Projects. The overall correlation coefficient for Beneficiaries needs assessment and implementation of Devolved Road Construction Projects was found to be 0.296 with a p-value of 0.000 < 0.05 implying that from the views of participants in the study the results indicated that there was a significant relationship between Beneficiaries needs assessment and implementation of Devolved Road Construction Projects; leading to rejection of the null hypothesis (H_0: There is no significant relationship between Beneficiaries needs assessment and implementation of County Government Devolved Road Construction Projects) and acceptance of the alternative hypothesis. The ANOVA results from the study participant s views indicated that the regression model for Beneficiaries needs assessment results was significantly better prediction of implementation of Devolved Road Construction Projects (1,283) =27.252 and *p-value*=0.000<0.05). The simple linear regression coefficients result indicated that the test of $\beta_{2=}0.257$ (coefficient of Beneficiaries needs assessment) statistics revealed that there was sufficient evidence that Beneficiaries needs assessment was linearly related implementation of Devolved Road Construction Projects (Value of test statistics: t=15.230; *p-value* =0.000<0.05).

5.2.3. Beneficiaries Involvement and Implementation of Devolved Road Construction Projects

The third research objective was to examine the extent to which Beneficiaries involvement influence implementation of Devolved Road Construction Projects. The composite mean and composite Standard deviation for Beneficiaries involvement were 4.50 and 0.835 respectively; implying that using the Likert scale, the respondents agreed that Beneficiaries involvement influence implementation of Devolved Road Construction Projects. The overall correlation coefficient for Beneficiaries involvement and implementation of Devolved Road Construction Projects was found to be 0.551 with a p-value of 0.000 < 0.05 implying that from the views of participants in the study the results indicated that there was a significant relationship

between Beneficiaries involvement and implementation of Devolved Road Construction Projects; leading to rejection of the null hypothesis (H_0: There is no significant relationship between Beneficiaries involvement and implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis. The ANOVA results from the study participant s views indicated that the regression model for Beneficiaries involvement results was significantly better prediction of implementation of Devolved Road Construction Projects (1,283) =123.585 and *p-value*=0.000<0.05). The simple linear regression coefficients result indicated that the test of β_3=0.567 (coefficient of Beneficiaries involvement) statistics revealed that there was sufficient evidence that Beneficiaries involvement was linearly related to implementation of Devolved Road Construction Projects (Value of test statistics: t=7.860; *p-value* =0.000<0.05).

5.2.4. Beneficiaries Feedback and Implementation of Devolved Road Construction Projects

The fourth research objective was to examine the extent to which Beneficiaries feedback influence implementation of Devolved Road Construction Projects. The composite mean and composite Standard deviation for Beneficiaries feedback were 4.29 and 0.969 respectively; implying that using the Likert scale, the respondents agreed that Beneficiaries feedback influence implementation of Devolved Road Construction Projects. The overall correlation coefficient for Beneficiaries feedback and implementation of Devolved Road Construction Projects was found to be 0.127 with a p-value of 0.032 < 0.05 implying that from the views of participants in the study the results indicated that there was a significant relationship between Beneficiaries feedback and implementation of Devolved Road Construction Projects; leading to rejection of the null hypothesis (H_0: There is no significant relationship between Beneficiaries feedback and implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis. The ANOVA results from the study participant s views indicated that the regression model for Beneficiaries feedback results was significantly better prediction of implementation of Devolved Road Construction Projects (1,283) =4.639 and *p-value*=0.032<0.05). The simple linear regression coefficients result indicated that the test of β_4=0.098 (coefficient of Beneficiaries feedback) statistics revealed that there was sufficient evidence that Beneficiaries feedback was linearly related to implementation of Devolved Road Construction Projects (Value of test statistics: t=19.771; *p-value* =0.000<0.05).

5.2.5. Beneficiaries satisfaction and Implementation of Devolved Road Construction Projects

The fifth research objective was to examine the extent to which Beneficiaries satisfaction influence implementation of Devolved Road Construction Projects. The composite mean and composite Standard deviation for Beneficiaries satisfaction were 4.36 and 0.985 respectively; implying that using the Likert scale, the respondents agreed that Beneficiaries satisfaction influence implementation of Devolved Road Construction Projects. The overall correlation coefficient for Beneficiaries satisfaction and implementation of Devolved Road Construction Projects was found to be 0.140 with a p-value of $0.018 < 0.05$ implying that from the views of participants in the study the results indicated that there was a significant relationship between Beneficiaries satisfaction and implementation of Devolved Road Construction Projects; leading to rejection of the null hypothesis (H_0: There is no significant relationship between Beneficiaries satisfaction and implementation of Devolved Road Construction Projects) and acceptance of the alternative hypothesis. The ANOVA results from the study participant s views indicated that the regression model for Beneficiaries satisfaction results was significantly better prediction of implementation of Devolved Road Construction Projects (1,283) =5.677 and *p-value*=0.018<0.05). The simple linear regression coefficients result indicated that the test of β_5=0.128 (coefficient of Beneficiaries satisfaction) statistics revealed that there was sufficient evidence that Beneficiaries satisfaction was linearly related implementation of County Government Devolved Road Construction Projects (Value of test statistics: t=16.157; *p-value* =0.000<0.05).

5.3 Conclusions

The first research objective was to examine the extent to which Beneficiaries identification influence implementation of Devolved Road Construction Projects. The simple linear regression coefficients as well as the Pearson correlation results indicated that there was significant influence of Beneficiaries identification on implementation of Devolved Road Construction Projects. The p-values less than the set threshold of significance; implied that there was a significant influence of Beneficiaries identification on implementation of Devolved Road Construction Projects.

The second research objective was to examine the extent to which Beneficiaries needs assessment influence implementation of Devolved Road Construction Projects. The simple linear regression coefficients as well as the Pearson correlation results indicated that there was significant influence of Beneficiaries needs assessment on implementation of Devolved

Road Construction Projects. The p-values less than the set threshold of significance; implied that there was a significant influence of Beneficiaries needs assessment on implementation of Devolved Road Construction Projects.

The third research objective was to examine the extent to which Beneficiaries involvement influence implementation of Devolved Road Construction Projects. The simple linear regression coefficients as well as the Pearson correlation results indicated that there was significant influence of Beneficiaries involvement on implementation of Devolved Road Construction Projects. The p-values less than the set threshold of significance; implied that there was a significant influence of Beneficiaries involvement on implementation of Devolved Road Construction Projects.

The Fourth research objective was to examine the extent to which Beneficiaries feedback influence implementation of Devolved Road Construction Projects. The simple linear regression coefficients as well as the Pearson correlation results indicated that there was significant influence of Beneficiaries feedback on implementation of Devolved Road Construction Projects. The p-values less than the set threshold of significance; implied that there was a significant influence of Beneficiaries feedback on implementation of Devolved Road Construction Projects.

The fifth research objective was to examine the extent to Beneficiaries satisfaction influence implementation of Devolved Road Construction Projects. The simple linear regression coefficients as well as the Pearson correlation results indicated that there was significant influence of Beneficiaries satisfaction on implementation of Devolved Road Construction Projects. The p-values less than the set threshold of significance; implied that there was a significant influence of Beneficiaries satisfaction on implementation of County Government Devolved Road Construction Projects.

5.4 Contribution of the Study to the Body of Knowledge

Table 5.1: Contribution of the Study to the Body of Knowledge

Objective of the Study	**Contribution to Knowledge**
1. To establish the extent to which beneficiary identification influences the implementation devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya.	1. The gaps in knowledge and information on beneficiary identification were positively filled by the study due to the positive influence of beneficiary identification on implementation of devolved road construction projects.
2. To assess the extent to which beneficiary needs assessment influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya	2. The study filled in the gaps in knowledge in beneficiary needs assessment due to the positive influence of beneficiary needs assessment adequately carried out in this study which ensure enhancement of implementation of devolved road construction projects.
3. To determine the extent to which beneficiary involvement influences the implementation devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya	3. The study contributes positively to the body of knowledge of beneficiary involvement given that beneficiary involvement positively influences the implementation of devolved road construction projects in Kisumu East sub county
4. To determine the extent to which beneficiary feedback influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu	4. Beneficiary feedback positively brought about speedy implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya.

Objective of the Study	Contribution to Knowledge
county, Kenya	
5. To establish the extent to which beneficiary satisfaction influences the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya.	*5.* Beneficiary satisfaction enhances the implementation of devolved road construction projects in Kisumu East sub county, Kisumu county, Kenya

5.5 Suggestions for Further Research

Considerations for future research are as follows:

i. The study targeted mainly participants drawn from County government devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya - to establish the influence of Beneficiary monitoring on implementation of devolved road construction projects in Kisumu East sub county, Kisumu County, Kenya. A similarly designed study on Beneficiary monitoring on implementation of devolved road construction projects should be conducted targeting several projects and not only devolved road construction project as in this study.

ii. While there have been many studies conducted on beneficiary monitoring in general; not many studies have been devoted to beneficiary identification, beneficiary needs assessment, beneficiary involvement, beneficiary feedback and beneficiary satisfaction. More ground-breaking studies in these less understood areas of research need to be conducted.

5.6 Recommendation

i. It is recommended that Kisumu East Sub County monitoring officers develops and implements a beneficiary monitoring and visibility plan for enhancing sustainable implementation of devolved road construction projects in Kisumu East Sub County, Kisumu County.

ii. It is recommended that Kisumu East Sub County monitoring officers conducts beneficiary needs assessment prior to implementation of devolved road construction projects in Kisumu East Sub County, Kisumu County.

iii. It is recommended that Kisumu East Sub County monitoring officers involve all stakeholders in their planning and monitoring of implementation of devolved road construction projects in Kisumu East Sub County, Kisumu County.

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Appendices

Appendix i: Qustionnaire

Dear Esteemed Respondent,

My name is **George Aggrey Ochieng Sule** currently undertaking my postgraduate studies at the University of Nairobi, Kisumu Campus. I have Developed a research Proposal entitled; **Beneficiary Monitoring on Implementation of Devolved Road Construction Projects in Kisumu East Sub County, Kisumu County.**

1. Kindly fill all the sections and attempt all the questions/Statements by ticking in the boxes provided appropriately
2. The Questionnaire Contains 7 Sections A, B, C, D, E, F and G.
3. Do not reveal your identity by writing your name or telephone contact on the questionnaire.

SECTION A: DEMOGRAPHIC INFORMATION

1. Kindly Choose the age bracket you belong to
    - □ 18 – 20 yrs
    - □ 21 – 25 yrs
    - □ 26 – 30 yrs
    - □ 31 – 35 yrs
    - □ 36 – 40 yrs
    - □ 41 – 45 yrs
    - □ Above 45 yrs
2. Select your appropriate gender
    - □ Male
    - □ Female
3. What is your marital status?
    - □ Married
    - □ Widowed
    - □ Divorced
    - □ Single
    - □ Separated
4. What is your highest educational qualification?

- PhD
- Masters
- Bachelor s Degree
- Diploma
- Certificate
- Secondary School Certificate
- Primary School Certificate

5. What post do you hold in the county?
   - County Chief Officer
   - Sub County Administrator
   - Departmental Director
   - County Engineers
   - Ward Administrator
   - Project Inspector
   - Community Member

For section B-G, use the following scale to indicate your level of agreement or disagreement with the statements provided

SECTION B: Beneficiary Identification and Implementation of Devolved Road Construction Projects

This Section Contains items and statements on Beneficiary Identification and Implementation of devolved road construction projects that require you to rate in a Likert scale of 5 to 1 depending on your level of agreement.

Item	**Statement**	**Strongly Agree(5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly Disagree(1)**
BI 1	Focus groups meetings ensures successful implementation of devolved road construction projects					
BI2	Technical Personnel engagement enhances faster implementation of					

	devolved roads construction projects					
BI3	Employment of locals leads smooth implementation of devolved road construction projects					
BI4	On the job trainings brings about faster implementation of devolved road construction projects.					
BI5	Prioritization of road network enhances leads to smooth implementation of devolved road construction projects.					

SECTION C: Beneficiary Needs Assessment and Implementation of Devolved Road Construction Projects

This Section Contains items and statements on Beneficiary Needs Assessment and Implementation of devolved road construction projects that require you to rate in a Likert scale of 5 to 1 depending on your level of agreement.

Item	**Statement**	**Strongly Agree(5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly Disagree(1)**
BNA1	Implementation of devolved road construction projects enhances accessibility of the area by the locals					
BNA2	Implementation of devolved road construction projects leads to reduction in criminal activities					
BNA3	Implementation of devolved road construction projects leads to creation of business opportunities.					

BNA4	Implementation of devolved road construction projects leads to establishment of hospitals					
BNA5	Implementation of devolved road construction projects leads to emergence of market centers.					

SECTION D: Beneficiary Involvement and Implementation of Devolved Road Construction Projects

This Section Contains items and statements on Beneficiary Involvement and Implementation of devolved road construction projects that require you to rate in a Likert scale of 5 to 1 depending on your level of agreement.

Item	**Statement**	**Strongly Agree(5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly Disagree(1)**
B1V 1	Implementation of devolved construction road construction projects ensures employment of locals					
B1V 2	Implementation of devolved roads construction projects leads to long term impact					
B1V 3	Accountability of expenditures ensures Implementation of devolved road construction projects					
B1V 4	Technical personnel engagement ensures quick Implementation of devolved road construction projects					
B1V 5	Engagement of community leaders ensures quick Implementation of					

	devolved roads construction projects					

SECTION E: Beneficiary Feedback and Implementation of Devolved Road Construction Projects

This Section Contains items and statements on Beneficiary Feedback and Implementation of devolved road construction projects that require you to rate in a Likert scale of 5 to 1 depending on your level of agreement.

Item	**Statement**	**Strongly Agree(5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly Disagree(1)**
BF1	Having public meetings to discuss projects ensures smooth implementation of devolved roads construction projects.					
BF2	Implementation of devolved roads construction projects leads to increase in per capita income hence raising living standards.					
BF3	Generation of projects progress reports projects ensures smooth implementation of devolved roads construction projects					
BF4	Having focus groups meetings to ensures smooth implementation of devolved roads construction projects					
BF5	Generation of substantial completion reports projects ensures smooth implementation of devolved roads construction					

	projects					

SECTION F: Beneficiary Satisfaction and Implementation of Devolved Road Construction Projects

This Section Contains items and Beneficiary Satisfaction and Implementation of devolved road construction projects

that require you to rate in a Likert scale of 5 to 1 depending on your level of agreement.

Item	**Statement**	**Strongly Agree(5)**	**Agree (4)**	**Neutral (3)**	**Disagree (2)**	**Strongly Disagree(1)**
BS1	Implementation of devolved road construction projects ensures adequate road network to the community					
BS2	Knowledge on projects inputs ensures smooth implementation of devolved roads construction projects					
BS3	Implementation of devolved roads construction projects enhances stakeholder satisfaction.					
BS4	Generation of substantial completion reports ensures smooth implementation of devolved roads construction projects					
BS5	Community opinion about the projects enhances quick implementation of devolved roads construction projects					

SECTION G: Implementation of County Government Devolved Road Construction Projects

This Section Contains items and statements on Implementation of devolved road construction projects that require you to rate in a Likert scale of 5 to 1 depending on your level of agreement.

Item	Statement	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
IMC 1	Adherence to quality standards leads to successful Implementation of devolved road construction projects					
IMC2	Devolved roads construction projects are cost effective					
IMC3	Implementation of devolved road projects enhances stakeholder satisfaction.					
IMC4	Devolved road projects are completed in time.					
IMC5	Devolved road projects are sustainable.					

Appendix ii

Interview Schedule

INTERVIEW SCHEDULE ON INFLUENCE OF BENEFICIARY MONITORING ON IMPLEMENTATION OF COUNTY GOVERNMENT DEVOLVED ROAD CONSTRUCTION PROJECTS IN KISUMU EAST SUB COUNTY, KISUMU COUNTY KENYA.

1. How is the Beneficiary to the projects identified?
2. How are the needs assessment of the project beneficiaries carried out?
3. What is the level of involvement of the project participants in the projects?
4. What are the feedback given by the project beneficiaries on the projects?
5. What is the level of satisfaction of the beneficiaries to the projects?
6. How is the implementation of the county government devolved road construction projects?

Appendix iii: Krejcie & Morgan (1970) Table for determining sample size of a given population

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.

Appendix iv

Research Permit from Nacosti

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **723601**

Date of Issue: **10/November/2021**

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