



**PROJECT STAKEHOLDER ENGAGEMENT AND PERFORMANCE OF AFFORDABLE HOUSING PROJECTS IN
TRANS NZOIA COUNTY, KENYA**

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ABSTRACT

The main objective of this study was to investigate influence of stakeholders' engagement on performance of affordable housing projects in Trans Nzoia County, Kenya. A descriptive research design was used in the study. The study targeted 72 respondents comprising of project managers, physical planners, building inspectors and project architects. From the targeted population, the study sampled 72 respondents using census sampling techniques. The study used primary data which was collected using structured questionnaires. Pilot test was conducted to test validity and reliability of data collection tools. Descriptive and inferential analysis was done by the use of Statistical Package for Social Sciences (SPSS 27) and presented through percentages, means, standard deviations and frequencies. For variable relationships, inferential analysis was examined and analyzed data was presented by use of tables and models. From the findings, this study establishes that there exists a significant relationship between stakeholders' engagement in project conceptualization on completion of housing construction projects, there exists a significant relationship between stakeholder engagement in project implementation and the completion of housing construction projects, there exists a significant positive relationship between stakeholder engagement in monitoring and evaluation and the completion of housing construction projects, finally there exists a positive significant relationship between stakeholder engagement in project risk management and completion of housing construction projects. The study therefore concluded that stakeholder engagement has significant influence on completion of housing construction projects in Kisumu County. This study therefore contributes immensely to policy formulation and the growth of Project management discipline in general. The study provides a pedestal upon which policy formulation on stakeholder engagement in project work can be anchored. This study also provides the needed empirical evidence on the importance and usefulness of stakeholder engagement in project management as a discipline.

Key Words: Stakeholder Engagement, Project Conceptualization, Project Implementation, Monitoring And Evaluation, Risk Management

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INTRODUCTION

Engaging stakeholders in construction is a formal process of relationship management through which clients, contractors and sub-contractors engage with a set of primary and secondary stakeholders, in an effort to align their mutual interest to reduce risk in projects. Stakeholder engagement leads to effectiveness and better decisions in projects (Luvuga & Ngari, 2019). The level of the stakeholder engagement in a project will certainly fluctuate; project managers should work hard to ensure the participation is never nonexistence (Bojang, 2020). The ideas of involving people within the organization during policies implementation include, presenting the designs, workshops, open forums recurring agenda, items in established departmental meetings. Keeping people involved will facilitate the change process by ensuring people understand why behind the change.

Lack of stakeholder engagement within the project can lead to huge resistance to change (Kituku, 2020). Limited engagement leads to lack of understanding which leads to costly mistakes, when implementing the project (Atiibo, 2022). Lack of participation of key influencers within the program can lead to the whole program or part of a project gets stalled. When people are involved, they will feel responsible for the changes happening around them. Anticipate their pain point, changing roles, fear of redundancy, training and accountability. This varies from organization to organization. Within every organization reaction will vary between individuals and will be dependent on a range of factors including personal upbringing and previous experiences of change.

Stakeholder engagement refers to the systematic efforts to involve individuals, groups, or organizations that can influence or are affected by the outcomes of a project (Freeman, 1984). It encompasses identifying stakeholders, understanding their needs and concerns, and actively involving them in the decision-making process. Stakeholder engagement is pivotal in ensuring the success and sustainability of

affordable housing projects. Engaging stakeholders, including government bodies, private developers, financial institutions, and the local community, ensures that the projects are aligned with the socio-economic needs of the population. Recent research highlights that early stakeholder involvement through public consultations and participatory planning enhances trust and reduces potential conflicts, as seen in large-scale urban projects in developing countries (Ngowi et al., 2022; Juma et al., 2023). Collaborative platforms and technology-enabled communication also foster a deeper understanding of diverse stakeholder expectations.

Performance in affordable housing projects refers to the extent to which these projects achieve their intended objectives, including cost-effectiveness, timely completion, quality standards, and accessibility for low-income households (Kamau & Onyango, 2022). The performance of housing projects can be evaluated through several key indicators that assess their success in achieving objectives such as cost-efficiency, quality, affordability, and sustainability. One critical indicator is timely completion, which measures whether the project is delivered within the planned schedule. Delays often lead to increased costs and reduced stakeholder confidence, making adherence to timelines crucial. For instance, Mwangi and Mutuku (2022) emphasize that timely project delivery is vital in minimizing financial risks and ensuring stakeholder satisfaction.

Affordable housing refers to housing solutions that are priced at a level where low-to-middle-income households can afford basic living costs without financial distress (UN-Habitat, 2020). Affordable housing projects implemented by governments are designed to address housing shortages, particularly for low- and middle-income populations, by providing quality housing at subsidized costs. In Kenya, affordable housing is a key pillar of the government's "Big Four Agenda," which aims to construct 500,000 affordable housing units to alleviate the acute housing deficit. The Kenyan

government has adopted public-private partnerships (PPPs) as a primary model to achieve these goals, leveraging private sector efficiency while maintaining public oversight to ensure affordability and equity (Otieno & Ndungu, 2023).

Problem Statement

Availability of proper houses is one of the issues affecting many Kenyans, and thus it is part of the BETA. To ensure every Kenyan has access to comfortable houses, the government had planned to build at least 500,000 low-cost houses in a partnership scheme with the private sector. However, the state of implementation of government's affordable housing projects in Nairobi, Mombasa and Kisumu, which has generally slowed down for a number of reasons.

In Kenya the gap between demand and supply for housing continues to widen in the country. In Trans Nzoia County, even though National government through various ministries and parastatals has been implementing majority of their housing construction projects, there have been various performance issues ranging from cost overrun and delay in completion. Completion rates of affordable housing projects in Kenya are notably low. According to the State Department for Housing and Urban Development (2023), only 30% of planned housing units under the Affordable Housing Programme have been completed. In the North Rift region, Urban Housing Scheme have experienced delays averaging 12–18 months beyond their expected timelines (Mutua et al., 2023). Delays in stakeholder coordination, land acquisition disputes, and prolonged procurement processes have been cited as primary reasons for low completion rates (Owino & Odera, 2023).

Budget overruns are a persistent issue. A report by the Kenya National Bureau of Statistics (KNBS, 2023) indicates that 68% of housing projects in Kenya exceeded their budgets by an average of 15–25%. For instance, the Affordable Housing Initiative faced an overrun of KES 500 million, attributed to inflation, unexpected costs in infrastructure

upgrades, and weak cost control mechanisms (Oketch et al., 2023). Budget overruns lead to stalled projects, diminished investor confidence, and reduced affordability for the target demographic. Adherence to quality standards in affordable housing projects remains a significant challenge. According to NCA (National Construction Authority, 2023), 42% of housing units in recent projects in Kenya failed to meet quality benchmarks, such as structural integrity and use of recommended construction materials. In the North Rift region, poor workmanship and substandard materials have been reported in several projects, with over 20% of inspected units deemed unsuitable for occupation (Ondiek & Omondi, 2023). Lack of rigorous quality monitoring mechanisms, inadequate stakeholder engagement, and insufficient training for contractors have been highlighted as major contributors to these lapses (Mwangi & Obiero, 2023).

A survey of the outcomes of many World Bank projects demonstrated that success or failure of housing development projects extended frequently relies upon different factors, for example, the involvement of stakeholders in the project (Akanni, 2024). Organizations can no longer choose if they want to engage with stakeholders or not; the only decision they need to take is when and how successfully to engage (Debra, 2019). Stakeholder engagement is premised on the notion that 'those groups who can affect or are affected by the achievements of an organization's purpose' should be given the opportunity to comment and input into the development of decisions that affect them.

Local scholars such as Madukani (2018), Mwinzi and Moronge (2018) as well as Luvuga and Ngari, (2019) have studied completion of construction projects. These scholars have focused on variables such as project management systems, procurement methods as well as project leadership skills. In a recent study conducted on determinants of successful performance of affordable housing projects in Ministry of Housing in Nairobi, Kenya it was stated that the concept of construction project

completion remains unclearly defined due to different expectations from different stakeholders (Owoko, 2018). Therefore, this study investigated influence of project stakeholders' engagement on implementation of affordable housing projects in Trans Nzoia County, Kenya.

Objectives of the study

The general objective of this study was to investigate influence of project stakeholder engagement and performance of affordable housing projects in Trans Nzoia County, Kenya. The specific objectives were;

- To establish the influence of stakeholder engagement in project conceptualization on performance of affordable housing projects in Trans Nzoia County, Kenya.
- To evaluate the influence of stakeholder engagement in project implementation on performance of affordable housing projects in Trans Nzoia County, Kenya.
- To determine the influence of stakeholder engagement in monitoring and evaluation on performance of affordable housing projects in Trans Nzoia County, Kenya.
- To establish the influence of stakeholder engagement in risk management on performance of affordable housing projects in Trans Nzoia County, Kenya.

The study was guided by the following hypotheses

- **H₀₁:** There is no significant influence of stakeholder engagement in project conceptualization on performance of affordable housing projects in Trans Nzoia County, Kenya.
- **H₀₂:** There is no significant influence of stakeholder engagement in project implementation on performance of affordable housing projects in Trans Nzoia County, Kenya.
- **H₀₃:** There is no significant influence of stakeholder engagement in monitoring and evaluation on performance of affordable housing projects in Trans Nzoia County, Kenya.
- **H₀₄:** There is no significant influence of stakeholder engagement in risk management

on performance of affordable housing projects in Trans Nzoia County, Kenya.

LITERATURE REVIEW

Theoretical Review

Theory of Constraints (TOC)

The Theory of Constraints (TOC), introduced by Goldratt (1984), posits that in any complex system, there exists at least one constraint limiting the system's performance. Identifying and addressing this constraint is crucial for improvement. In project management, TOC emphasizes pinpointing bottlenecks that hinder project timelines and resource allocation. By focusing on these constraints, managers can implement targeted interventions to enhance efficiency and achieve project objectives (Goldratt, 1984). This approach underscores the importance of continuous improvement and proactive problem-solving in managing complex projects.

Integrating TOC with the Project Management Body of Knowledge (PMBOK) framework allows for a structured approach to constraint management across all project phases. During the initiation phase, clearly defining project objectives and understanding stakeholder expectations can help identify potential constraints early (PMI, 2023). In the planning phase, employing standardized methods and materials can reduce uncertainties and streamline processes. Throughout execution and monitoring, utilizing key performance indicators related to time, cost, and scope enables managers to detect and address emerging constraints promptly, ensuring the project remains on track.

Effective stakeholder engagement is integral to TOC application in project management. Blackstone (2010) emphasizes that proactively managing stakeholder-related constraints can mitigate risks and enhance project success. Engaging stakeholders during the initiation phase helps in setting realistic expectations and defining clear objectives. Continuous communication throughout the project lifecycle ensures that stakeholder concerns are

addressed, and potential constraints arising from stakeholder dynamics are managed effectively, thereby facilitating smoother project execution and achieving desired outcomes.

Stakeholder Theory

Stakeholder Theory, articulated by Freeman (1984), asserts that organizations must consider the interests of all stakeholders, not solely shareholders, to achieve long-term success. Stakeholders encompass entities such as employees, customers, suppliers, communities, and governmental bodies. Recognizing and addressing the diverse needs and expectations of these groups is vital for fostering positive relationships and ensuring organizational sustainability (Freeman, 1984). This comprehensive approach promotes ethical decision-making and enhances corporate reputation.

Effective stakeholder management is closely linked to improved project outcomes. Engaging stakeholders during planning, implementation, and risk management phases ensures that diverse perspectives are considered, leading to more robust and sustainable decisions. For instance, involving community representatives in project planning can help identify potential social or environmental concerns early, allowing for proactive mitigation strategies (Harrison & Wicks, 2013). This inclusive approach not only enhances project acceptance but also contributes to long-term success.

In the context of housing construction projects, Stakeholder Theory is particularly pertinent. Engaging various stakeholders—including future residents, local authorities, and contractors—throughout the project lifecycle ensures alignment with the needs and expectations of all parties involved. This comprehensive engagement fosters trust, facilitates smoother project execution, and enhances the overall success and acceptance of the project (Mok, Shen, & Yang, 2020). By prioritizing stakeholder interests, project managers can

navigate complexities more effectively and deliver outcomes that are beneficial to all stakeholders.

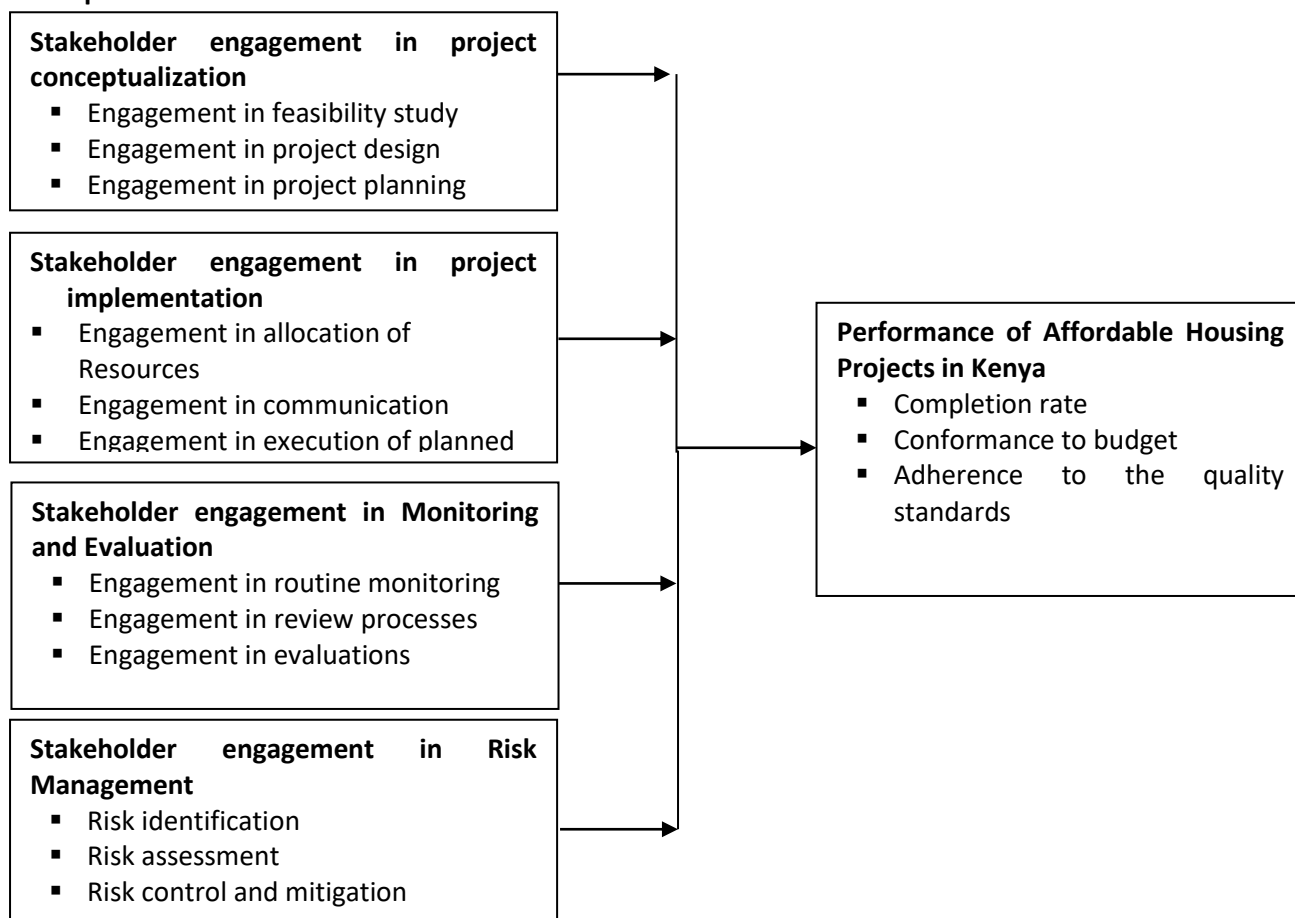
Ladder of Citizen Participation

Sherry Arnstein's Ladder of Citizen Participation, introduced in 1969, provides a framework for assessing the levels of citizen involvement in decision-making processes. The ladder comprises eight rungs, categorized into three groups: Nonparticipation (Manipulation, Therapy), Tokenism (Informing, Consultation, Placation), and Citizen Power (Partnership, Delegated Power, Citizen Control). This model illustrates the progression from minimal to significant citizen influence in governance and project decisions (Arnstein, 1969). Understanding these levels aids in evaluating the effectiveness of public participation initiatives.

Genuine participation occurs at the higher levels of the ladder, where citizens have substantial control over decisions. For instance, in the 'Partnership' rung, power is redistributed through negotiation between citizens and power holders, establishing joint planning and decision-making responsibilities. This level of engagement ensures that community voices are not only heard but also have a tangible impact on outcomes (Arnstein, 1969). Such empowerment fosters trust and collaboration between stakeholders.

In evaluating stakeholder engagement in affordable housing projects, Arnstein's Ladder serves as a valuable tool. It aids in analyzing the extent of citizen participation, identifying areas where engagement may be superficial, and highlighting opportunities to elevate participation to levels where citizens have meaningful influence. Such inclusive decision-making processes are critical for the success and sustainability of housing initiatives, ensuring they meet the actual needs of the community (Gaber, 2019). By striving for higher rungs on the ladder, project managers can promote more effective and equitable participation.

Conceptual Framework



Independent variables

Dependent Variable

Figure 1: Conceptual Framework

Stakeholder Engagement in Project conceptualization

Project conceptualization sets the foundation for project success, requiring analysis of requirements, financial planning, stakeholder examination, and objective alignment. Deficiencies during this stage can lead to delays, increased costs, and project failure (Albert, 2023; Nijkamp et al., 2022). Effective stakeholder engagement during this phase improves resource allocation, credibility, and commitment to project goals (Magret, 2020). Studies highlight the need for better stakeholder participation in project planning, particularly for scope definition and resource allocation. Poorly defined scope due to incomplete stakeholder input can lead to inefficiencies (Fageha & Aibinu, 2020). Early participation in conceptualization activities, such as screening and selection, ensures alignment

with stakeholders' needs and enhances performance indicators (Wamugu & Ogollah, 2019; Heravia et al., 2021).

Stakeholder Engagement in Project implementation

Stakeholder involvement is crucial during project implementation, as this phase translates project plans into actionable activities. Gitonga (2021) defines project implementation as a fundamental phase where the success of a project depends on the quality of the project plan, management capacity, and employee efficiency. Stakeholders, including employees, regulators, suppliers, and contractors, are essential in ensuring the project's objectives are met effectively (Nyandemo & Kongere, 2021; Giridhar & Ramesh, 2018). Employee involvement from the project formulation stage minimizes resistance during

implementation, ensuring collaboration and resource coordination (Olander & Landin, 2021). Stakeholder participation enhances decision-making quality, fosters accountability, and aligns project activities with planned objectives (Marzuki, 2019). For instance, Njogu (2020) found that stakeholder contributions, such as role assignments and cost analysis, significantly improved project outcomes, including reduced operational costs and resource optimization.

Stakeholder Engagement in Monitoring and Evaluation

Monitoring is a systematic process of tracking project inputs, deliverables, schedules, and outputs to ensure alignment with the project plan (Fageha & Aibinu, 2020). It involves continuous observation and information gathering to identify deviations and mitigate risks before they escalate. Stakeholder involvement in monitoring enhances transparency, accountability, and project performance by aligning activities with goals and ensuring timely corrective actions (Ondieki, 2020). Participatory monitoring not only empowers stakeholders but also strengthens relationships between them and the project, fostering ownership and responsibility (Flanagan & Norman, 2023). Properly selected and informed stakeholders can identify challenges, support corrective measures, and improve environmental and social outcomes. Organizations can leverage stakeholder participation in monitoring to support project completion and improve performance, as constructive involvement directly influences project success (Coulter, 2021; Katiku, 2021).

Stakeholder Engagement in Risk management

Risk management is critical to project implementation and involves identifying, analyzing, responding to, and monitoring risks to ensure alignment with project objectives (PMI, 2018; Teller & Gemunden, 2023). While risk management is associated with project success, studies indicate that it underperforms in practice due to inadequate stakeholder involvement and poor risk strategies (Mohammed, 2021; Bannerman, 2018). Effective

stakeholder management, including needs identification and engagement strategies, is essential for mitigating delays, cost overruns, and project failures. However, research gaps remain in understanding these practices in the Kenyan context, necessitating further studies. Stakeholder engagement plays a vital role in risk management, enhancing alignment, reducing turbulence, and improving project performance. Participatory approaches in risk management foster transparency, accountability, and adaptability, ensuring projects can navigate emergent challenges effectively.

Performance of Housing Construction Project

These are defined as measures by which success or failure of the housing project will be judged (Cooke-Davies, 2022). Earlier Lim et al., (2019) defined performance indicators as set of principles or standards by which success of the housing construction can be judged. Toor et al., (2019) suggested the following indicators for measuring performance: project completion on time, within budget and to specified quality; safety, efficiency, effectiveness, free from defect, meets stakeholders' expectations, and minimal construction disputes and conflicts. Atkinson, (2019) classified housing construction performance indicators into two measures - success at the delivery stage and success at post-delivery stage. The performance indicators at the delivery stage include cost, time and quality and are referred to as iron triangle. These indicators measure the efficiency of project management or project management success. On the other hand, the project performance indicators at the post-delivery stage are divided into product performance indicators and organizational performance indicators. The product (Houses) performance indicators include end user satisfaction, environmental impact, contractors' profit, and team members' satisfaction, while the organisational performance indicators are the benefit to the organization, which includes improved efficiency, improved effectiveness,

increased profits, reduced waste and promotion of organisational learning.

Furthermore Ahadzie, Proverbs et al., (2018) identified 15 project performance indicators for mass housing projects, which they classified into four components as follows: environmental impact, customer satisfaction, overall cost and time, and quality. Sanvido et al. (2022) proposed the following indicators for measuring project success, depending on a stakeholder 's perspectives (client, end user, contractor or consultant). The indicators were project completed on budget, on schedule and to specified quality; client satisfaction; end user satisfaction; pleasing aesthetics; product marketability; safety; and minimal or no claims or conflicts.

Empirical Literature

Abdi (2019) undertaken to demonstrate how stakeholder participation influences the performance of agricultural projects. The study utilized descriptive survey research design with a target population of 220 individuals drawn from the Agriculture department of Wajir County government, project beneficiaries, implementing agencies, as well as service providers. The study found that Stakeholder involvement in the project at conceptualization has positive effect on project performance while participation during funding has negative effect to project performance. The study concludes that the effect of stakeholder participation on project performance is determined by the skills of the stakeholder on the subject matter.

Heravi, Coffey and Trigunarsyah (2021) examined the current level of stakeholder involvement during the project's planning process. A series of literature reviews was conducted to identify and categorize significant phases involved in the planning. For data collection, a questionnaire survey was designed and distributed among nearly 200 companies who were involved in the residential building sector in Australia. Results of the analysis demonstrate the engagement levels of the four stakeholder groups

involved in the planning process and establish a basis for further stakeholder involvement improvement.

Adan (2022) assessed the role of various stakeholders such as CDFC, PMC and government officials in the performance of CDF funded projects and use the findings to come up with recommendations/measures to strengthen use of CDF funds. The research study adopted a descriptive survey design. The target population for this study was 155 representatives from the Constituency; data was collected by use questionnaires and interviews. Stratified proportionate random sampling technique was used to select 140 respondents from the project representatives. The study found that CDFC, PMC and government officials' role in project implementation contributed most to project performance.

Wamugu and Ogollah (2019) assessed the Role of Stakeholders Participation on the Performance of Constituency Fund Development Projects in Kenya, a case of Mathira East Constituency. A descriptive research design was adopted, whereby both quantitative and qualitative data was collected using a questionnaire from Mathira East constituency. The study population was the entire CDF project initiated in Mathira East Constituency in the year 2018/2024. The study sample for the respondents was obtained using stratified and simple random sampling techniques. The study concluded that most notably participation in project initiation activities such as identification screening and selection is the most critical as it is at this stage were stakeholder can have the highest influence on performance of CDF projects.

Oyugah and Onyango (2019) sought to address the effect of stakeholder involvement on performance of road construction projects in Uasin Gishu County, Kenya. The study embraced descriptive study design. Census sampling method was adopted where all members in the strata totaling to 101 were involved in the study. The study adopted survey research method where semi-structured

types of questionnaires were used as origins of data from study respondents. It was determined that stakeholder involvement in monitoring and evaluation leads to improved performance in construction of road projects in the County.

Makau, Mackenzi and Nicole (2018) investigated effect of stakeholders' participation on project monitoring and evaluation. Using systematic quantitative literature review technique, the study investigated variables based on the conceptual model of participation from the Daltons' work (Daltons, 2020) and their effect on cost, time and quality of project monitoring and evaluation as reported in publications sample. A sample of 31 literature materials was analyzed and content analysis used to extract summary narration. The study concluded found that the quality of project monitoring and evaluation was influenced by the strength of participation of stakeholders.

Maina and Kimutai (2018) sought to determine the influence of stakeholder need and expectation identification; communication; conflict management and stakeholder participation on project performance. The research adopted both descriptive and explanatory research design. The study targeted 255 respondents out of which 213 successfully filled the questionnaire. The researcher used questionnaires to collect primary data. The results of the study established that stakeholder involvement in risk management has positive and significant and thus these factors determine project performance.

Sichone (2020) aimed to achieved through the assessment of relationships between stakeholder engagement and the three performance parameters namely; project cost, project schedule and project specifications. The research approach that was adopted was a quantitative with descriptive research design. Both primary and secondary data were collected using a semi structured questionnaire which gave a 98% response rate. Findings revealed presence of a strong and positive correlation between stakeholder engagement in risk management and

project schedule also between stakeholder engagement and project specifications. Results also showed that stakeholder's engagement in risk management was strongly but negatively correlated to project cost.

METHODOLOGY

A descriptive research design was adopted to conduct the current study. The design in accordance with Kothari (2018) intended to describe the characteristics of the people included in the study and the variables under investigation. The study's target population was 108 respondents from North Rift region of Kenya. They included Project Managers, Physical Planners, Building inspectors, Project Architects, Site Managers and Quantity Surveyors. This population included the total number of people that were involved in the execution of the housing project. The study's sampling frame included Project Managers, Physical Planners, Building inspectors, Project Architects, Site Managers and Quantity Surveyors. The study adopted census sampling technique since the target population was less than 100. There the sample size was 72. Data was collected through structured questionnaires to collect primary data. The questionnaires were designed according to the objectives of the study by highlighting the five variables that the study checked on a Likert scale.

The data analysis in this study involved the use of descriptive and inferential statistics. Descriptive statistics refer to methods of organizing and summarizing data, for this study frequencies and percentages as well as measures of central tendency (means) and dispersion (standard deviation) was used. Inferential statistics refer to methods of drawing conclusions from sample data about a population. For this study, regression and correlation analysis was used to determine both the nature and the strength of the relationship between study variables. Correlation analysis is usually used together with regression analysis to measure how well the regression line explains the variation of the dependent variable. The regression and correlation analyses were based on the

association between two (or more) variables. SPSS version 27 is the computer analysis tool that was used in this study. Analyzed data was organized into models and tables for easy reference

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where Y = Performance of Affordable Housing Projects

β_0 = Constant

X_1 is Project conceptualization,

X_2 is Project implementation,

X_3 is Monitoring and Evaluation,

X_4 is Risk management,

{ β_0 - β_9 } are Beta coefficients,

ϵ is the error term

FINDINGS AND DISCUSSION

The researcher distributed a total number of 72 questionnaires to different stakeholders inf affordable housing project in Trans Nzoia County. Out of these 53 questionnaires were successfully filled and handed back to the researcher which gives a 76.3% response rate. According to Baruch and Holtom (2008) a minimum average level of

response rate of 52.7 percent is good; with any rates above 70% deemed to be excellent. Therefore, the response rate obtained for this study (76.3%) was adequate to draw conclusions.

Descriptive Statistics of Variables in the Study

All the study variables were subjected to descriptive analysis and were examined for central tendency through mean, frequency and standard deviation.

Analysis of Stakeholder Engagement in project conceptualization

Indicators on stakeholder engagement in project conceptualization were as follows; engagement in feasibility study, Engagement in project design and engagement in project planning. Respondents were given items rated on a five-point likert where 5=strongly agree (SA), 4=agree (A), 3=Partially Agree (PA), 2=disagree (D) and 1=strongly disagree (SD). The descriptive findings on stakeholder engagement in project design are as shown in Table 1.

Table 1: Stakeholder Engagement in project conceptualization

Project conceptualization	5	4	3	2	1	Mean	SDV
Stakeholders involved in the design of this project from the very beginning	13 (24.5)	14 (26.4)	16 (30.2)	7 (13.2)	3 (5.7)	3.51	1.17
Stakeholders are part of the initial studies that examined the worth and feasibility of proposed interventions	26 (49.1)	9 (17)	14 (26.4)	1 (1.9)	3 (5.7)	4.02	1.17
Stakeholder are part of the originators of the project idea that birthed this project	15 (28.3)	14 (26.4)	15 (28.3)	3 (5.7)	6 (11.3)	3.55	1.28
Stakeholders are involved in the initial conceptualization of this housing project	17 (32.1)	22 (41.5)	11 (20.8)	2 (3.8)	1 (1.9)	3.98	0.93
The design and conceptualization of project idea was subjected to stakeholder validation	17 (32.1)	6 (11.3)	16 (30.2)	11 (20.8)	3 (5.7)	3.43	1.29
Stakeholder engagement in the design and conceptualization of this project was rigorous	18 (34)	12 (22.6)	15 (28.3)	5 (9.4)	3 (5.7)	3.70	1.20
Composite Mean						3.722	1.0797

Descriptive results in Table 1 shows that 30.2% of respondents partially agreed about stakeholders involved in the design of this project from the very beginning, 26.4% agreed while 24.5% strongly agreed. The results also show stakeholders are part of the initial studies that examined the worth and feasibility of proposed interventions, 1.9%

disagreed, 26.4% partially agreed, 17.0% agreed while 49.1% strongly agreed. On stakeholder are part of the originators of the project idea that birthed this project, 11.3% strongly disagreed, 5.7% disagreed, 28.3% partially agreed, 26.4% agreed while 28.3% strongly agreed. On Stakeholders are involved in the initial conceptualization of this

housing project, 3.8% of respondents disagreed, 20.8% partially agreed, 41.5% agreed while 32.1% strongly agreed. Stakeholders are involved in the initial conceptualization of this housing project, 20.8% of respondents disagreed, 30.2% partially agreed, 11.3% agreed while the 32.1% strongly agreed. Finally, stakeholder engagement in the design and conceptualization of this project was rigorous, 9.4% of the respondents disagreed, 28.3% partially agreed, 22.6% agreed and 34.0% agreed strongly.

Results from the mean and standard deviation show that respondents agreed on whether Stakeholders involved in the design of this project from the very beginning ($M=3.51$, $SD=1.17$), agree that stakeholders are part of the initial studies that examined the worth and feasibility of proposed interventions ($M=4.02$, $SD=1.17$), agreed that stakeholder are part of the originators of the project idea that birthed this project ($M=3.55$, $SD=1.28$), agreed that stakeholders are involved in the initial conceptualization of this housing project ($M=3.98$, $SD=0.93$), partially agreed that the design and conceptualization of the project idea was subjected to stakeholder validation ($M=3.43$, $SD=1.29$) and agreed that stakeholder engagement in the design and conceptualization of this project was rigorous ($M=3.70$, $SD=1.20$).

The composite mean and standard deviation ($M=3.722$, $SD=1.08$) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements. Results show that responses were scattered far from the mean as it was characterized by large standard deviation. This ordinarily means majority of respondents were not of the same mind. Project conceptualization determines project's nature and its extent. If this phase does not work well, the project is unlikely to be effective in meeting the goals and objectives (Nijkamp et al., 2012). During project conceptualization, real and substantial stakeholders should be distinguished and their capacity and impact comprehended to deal with their potential effect on the projects (Curley, Steve and Ricky, 2012).

Analysis of Stakeholder Engagement in project Implementation

Indicators on stakeholder engagement in project Implementation were as follows; engagement in allocation of Resources, engagement in communication and engagement in execution of planned activities. Respondents were given items rated on a five-point likert where 5=strongly agree (SA), 4=agree (A), 3=Partially Agree (PA), 2=disagree (D) and 1=strongly disagree (SD). The descriptive findings on stakeholder engagement in project implementation are as shown in Table 2.

Table 2: Stakeholder Engagement in project Implementation

Project Implementation	5	4	3	2	1	Mean	SDV
Stakeholder have been part and parcel of the project's day-to-day operations	18 (34)	12 (22.6)	17 (32.1)	6 (11.3)	(0)	3.79	1.04
The level of stakeholders involvement in the project operations is satisfactory	26 (49.1)	8 (15.1)	8 (15.1)	3 (5.7)	8 (15.1)	3.77	1.49
Stakeholders have always interacted with the project staff on regular basis	17 (32.1)	16 (30.2)	12 (22.6)	4 (7.5)	4 (7.5)	3.72	1.21
Due to stakeholders level of interaction with the project, I hold vital information on project on-goings	16 (30.2)	13 (24.5)	14 (26.4)	5 (9.4)	5 (9.4)	3.57	1.28
Stakeholders have detailed understanding on project operations including procurement	15 (28.3)	20 (37.7)	8 (15.1)	4 (7.5)	6 (11.3)	3.64	1.29
Stakeholders have considerable access to	12 (22.6)	24 (45.3)	8 (15.1)	7 (13.2)	2 (3.8)	3.70	1.08
Composite Mean						3.7	1.23

Descriptive results from table 2 indicated that 32.1% of the respondents partially agreed on stakeholder have been part and parcel of the project's day-to-day operations, 22.6% agreed, 34.0% strongly agreed. On the level of stakeholder's involvement in the project operations is satisfactory 5.7% of the respondents disagreed, 15.1% partially agreed, 15.1% agreed while 49.1% strongly agreed. On stakeholders have always interacted with the project staff on regular basis, 22.6% partially agreed, 30.2% agreed and 32.1% strongly agreed. On due to stakeholder's level of interaction with the project, I hold vital information on project on- goings 9.4% of the respondents disagreed, 26.4% partially agreed, 24.5% agreed while 30.2% strongly agreed. On stakeholders have detailed understanding on project operations including procurement, 7.5% of respondents disagreed, 15.1% partially agreed, 37.7% agreed while 28.3% strongly agreed. On stakeholders have considerable access to project resources including financial resources, 45.3% of respondents agreed while 22.6% strongly agreed.

Results from the mean and standard deviation show that respondents agreed that stakeholder have been part and parcel of the project's day-to-day operations ($M=3.79$, $SD=1.04$), agreed that the level of stakeholders involvement in the project operations is satisfactory ($M=3.77$, $SD=1.49$), respondents agreed that stakeholders have always interacted with the project staff on regular basis ($M=3.72$, $SD=1.21$), agreed that due to stakeholders level of interaction with the project, I hold vital information on project on- goings ($M=3.57$, $SD=1.29$), agreed that stakeholders have detailed understanding on project operations including procurement ($M=3.64$, $SD=1.29$) and agreed that stakeholders have considerable access to project

resources including financial resources ($M=3.70$, $SD=1.08$).

The composite mean and standard deviation ($M=3.70$, $SD=1.23$) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements that were used to measure the stakeholder engagement in project implementation. Results show that responses were scattered far from the mean as it was characterized by huge standard deviation. This ordinarily means majority of respondents were of not the same mind. According to Duncan (2022), stakeholder involvement in project implementation is one of the most important exercise in managing projects. Project managers during the implementation stage facilitate the coordination of people, efficient utilization of resources and effective evaluation of risks to carry out the established project plan. In addition, as reported by Atkin and Skitmore (2008), practicing an appropriate stakeholder involvement approach in project implementation will make easier to manage their needs and anticipate risks that may have possible influence on performance of affordable housing projects in Trans Nzoia County, Kenya.

Analysis of Stakeholder Engagement in monitoring and evaluation

Indicators on stakeholder engagement in monitoring and evaluation were as follows; engagement in routine monitoring, engagement in review processes and engagement in evaluations. Respondents were given items rated on a five-point likert where 5=strongly agree (SA), 4=agree (A), 3=Partially Agree (PA), 2=disagree (D) and 1=strongly disagree (SD). The descriptive findings on stakeholder engagement in project monitoring and evaluation are as shown in Table 3.

Table 3: Stakeholder Engagement in project Monitoring and Evaluation

Monitoring and Evaluation	5	4	3	2	1	Mean	SDV
Stakeholders have been instrumental in the routine monitoring of the project	30 (56.6)	9 (17)	7 (13.2)	5 (9.4)	2 (3.8)	4.13	1.19
Stakeholders have been so involved in the continuous project review	12 (22.6)	8 (15.1)	14 (26.4)	11 (20.8)	8 (15.1)	3.09	1.38
Stakeholders have been so involved in all the assessments appertaining to this project	14 (26.4)	27 (50.9)	5 (9.4)	4 (7.5)	3 (5.7)	3.85	1.08
Stakeholders were involved in the social impact assessments and review undertaken in the Project the social in	22 (41.5)	4 (7.5)	5 (9.4)	2 (3.8)	20 (37.7)	3.11	1.83
Stakeholders were part of the evaluations including mid-term and end evaluations	18 (34)	14 (26.4)	10 (18.9)	8 (15.1)	3 (5.7)	3.68	1.25
Stakeholders input into project reviews and evaluations were taken into account	11 (20.8)	5 (9.4)	13 (24.5)	14 (26.4)	10 (18.9)	2.87	1.40
Composite Mean						3.46	1.36

From the descriptive results in Table 3, 13.2% of respondents partially agreed about Stakeholders have been instrumental in the routine monitoring of the project, 17.0% agreed while 56.6% strongly agreed. On the stakeholders have been so involved in the continuous project review, 20.8% disagreed, 26.4% partially agreed, while 15.1% agreed and 22.6% strongly agreed. On the stakeholders have been so involved in all the assessments appertaining to this project 5.7% of the respondents strongly disagreed, 7.5% disagreed, 9.4% gave a partial agreement response, 50.9% agreed while 26.4% strongly agreed. On involvement of stakeholders in the social impact assessments and review undertaken in the Project 37.7% strongly disagreed, 9.4% partially agreed, 7.5% agreed while 41.5% strongly agreed. On stakeholders were part of the evaluations including mid-term and end evaluations 15.1% respondents disagreed, 18.9% partially agreed, 26.4% agreed and 34.0% strongly agreed. On stakeholders input into project reviews and evaluations were taken into account 26.4% of respondents disagreed, 24.5% partially agreed, 9.4% agreed and 20.8% agreed strongly.

Results from the mean and standard deviation show that respondents agreed that stakeholders

have been instrumental in the routine monitoring of the project ($M=4.13$, $SD=1.19$), partially agreed that stakeholders have been so involved in the continuous project review ($M=3.09$, $SD=1.38$), respondents agreed that stakeholders have been so involved in all the assessments appertaining to this project ($M=3.85$, $SD=1.08$), partially agreed that Stakeholders were involved in the social impact assessments and review undertaken in the Project ($M=3.11$, $SD=1.83$), agreed that stakeholders were part of the evaluations including mid-term and end evaluations ($M=3.68$, $SD=1.25$) and partially agreed that Stakeholders input into project reviews and evaluations were taken into account ($M=2.87$, $SD=1.40$).

Composite mean and standard deviation ($M=3.46$, $SD=1.40$) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements that were used to measure the stakeholder engagement in monitoring and evaluation. Results show that responses were scattered far from the mean as it was characterized by small standard deviation. This ordinarily means majority of respondents were not of the same mind. Ondieki (2022) stated that stakeholders' involvement in Monitoring and

Evaluation process may be summarized as a continuous observations, information gathering, analysis, documentation, and assessment of changes and critical education at different research stages. Njogu (2022) established that stakeholder involvement inquiring in project monitoring of resource, taking action to collect errors that project require, identification of deviation in the project influence project performance.

Analysis of Stakeholder Engagement in Project Risk Management

Indicators on stakeholder engagement in project risk management included involvement in risk identification, risk assessment, risk control and mitigation. Respondents were given items rated on a Five-point likert from where 5=strongly agree (SA), 4=agree (A), 3=partially agree (PA), 2=disagree (D) and 1=strongly disagree (SD). The descriptive results on this parameter are as shown in Table 4.

Table 4: Stakeholder Engagement in project Risk Management

Project Risk Management	5	4	3	2	1	Mean	SDV
All stakeholders involved in the assessment of the risks and uncertainties during the design phase of the projects	36 (67.9)	5 (9.4)	8 (15.1)	3 (5.7)	1 (1.9)	4.36	1.06
After the risk has been identified and evaluated, key stakeholders develop a risk mitigation plan to reduce the impact of an unexpected event	18 (34)	17 (32.1)	9 (17)	9 (17)	0 (0)	3.83	1.09
All key stakeholder participate in development of risk breakdown structure that we normally use to identify potential risk for mitigation	32 (60.4)	11 (20.8)	3 (5.7)	5 (9.4)	2 (3.8)	4.25	1.16
Key stakeholders often develops an alternative method for accomplishing a project goal when a risk event has been identified that may frustrate the accomplishment of that goal	23 (43.4)	5 (9.4)	13 (24.5)	6 (11.3)	6 (11.3)	3.62	1.43
Risks are identified with each major group of activities to identify increasing levels of detailed risk analysis.	15 (28.3)	3 (5.7)	12 (22.6)	11 (20.8)	12 (22.6)	2.96	1.53
Regular progress meetings assisted in monitoring and controlling risks associated with community complaints and slow progress of works.	17 (32.1)	8 (15.1)	14 (26.4)	9 (17)	5 (9.4)	3.43	1.35
Composite Mean						3.74	1.27

From descriptive results in Table 4, 15.1% partially agreed on all stakeholders involved in the assessment of the risks and uncertainties during the design phase of the projects, 9.4% agreed, 67.9% strongly agreed. On after the risk has been identified and evaluated, key stakeholders develop a risk mitigation plan to reduce the impact of an unexpected event, 17.0% disagreed, 17.1% partially agreed, 32.1% agreed while 34.0% strongly agreed. On all key stakeholder participate in development of risk breakdown structure that we normally use to identify potential risk for mitigation, 5.7% partially

agreed, 20.8% agreed while 60.4% strongly agreed. On key stakeholders often develops an alternative method for accomplishing a project goal when a risk event has been identified that may frustrate the accomplishment of that goal, 11.3% disagreed, 24.5% partially agreed, 9.4% agreed while 43.4% strongly agreed. On risks are identified with each major group of activities to identify increasing levels of detailed risk analysis 20.8% of respondents disagreed, 22.6% partially agreed, 5.7% agreed while 28.3% strongly agreed. On regular progress meetings assisted in monitoring and controlling

risks associated with community complaints and slow progress of works., 15.1% of the respondents agreed while 32.1% strongly agreed.

The descriptive results from the mean and standard deviation show that respondents agreed that all stakeholders involved in the assessment of the risks and uncertainties during the design phase of the projects (M=4.36, SD=1.06), agreed that after the risk has been identified and evaluated, key stakeholders develop a risk mitigation plan to reduce the impact of an unexpected event (M=3.83, SD=1.09), respondents further agreed that all key stakeholder participate in development of risk breakdown structure that we normally use to identify potential risk for mitigation (M=4.25, SD=1.16), agreed that the Key stakeholders often develops an alternative method for accomplishing a project goal when a risk event has been identified that may frustrate the accomplishment of that goal (M=3.62, SD=1.43), partially agreed that risks are identified with each major group of activities to identify increasing levels of detailed risk analysis. (M=2.96, SD=1.53) and partially agreed that regular progress meetings assisted in monitoring and controlling risks associated with community complaints and slow progress of works (M=3.43, SD=1.35).

The composite mean and standard deviation (M=3.74, SD=1.27 indicated that responses were concentrated around the mean and that respondents agreed to most of the statements that were used to measure the stakeholder engagement in project risk management. Results show that responses were scattered far from the mean as it was characterized by large standard deviation. This ordinarily means majority of respondents were not of a similar mind. Maina and Kimutai (2018) sought to determine the influence of stakeholder need and expectation identification; communication; conflict management and stakeholder participation on project performance. The results of the study established that stakeholder involvement in risk management has positive and significant and thus these factors determine project performance.

Inferential Analysis

Correlation Analysis

Correlation analysis is used to determine the strength and direction of the relationship between the Stakeholder engagement (Project conceptualization, Project implementation, Risk management, Monitoring and evaluation) and the Performance of affordable housing projects in Trans Nzoia County, Kenya and the findings were as shown in Table 5 below.

Table 5: Correlation Analysis

		Conceptualization	Implementation	Monitoring & evaluation	Risk management
Project conceptualization	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	53			
Project implementation	Pearson Correlation	.756**	1		
	Sig. (2-tailed)	.000			
	N	53	53		
Monitoring and evaluation	Pearson Correlation	.504**	.579**	1	
	Sig. (2-tailed)	.000	.000		
	N	53	53	53	
Risk management	Pearson Correlation	.747**	.874**	.619**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	53	53	53	53
Performance of affordable housing projects in Trans Nzoia County, Kenya	Pearson Correlation	.647**	.728**	.524**	.709**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	53	53	53	53

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

The results above (Table 5), all the relationships were positive, and significant ($p\text{-value}=0.001$) implying that stakeholder engagement are positively and significantly related with performance of affordable housing projects in Trans Nzoia County, Kenya. The most significant stronger relationship was between project implementation and Performance of affordable housing projects in Trans Nzoia County, Kenya ($r= 0.728$, $p\text{-value}= 0.000 < 0.05$). This implied that increase in stakeholder engagement in project implementation would results to increase in performance of affordable housing projects in Trans Nzoia County, Kenya. Abdi (2019) found that Stakeholder involvement in the project at conceptualization has positive effect on project performance while participation during funding has negative effect to project performance. The study concludes that the effect of stakeholder participation on project performance is determined by the skills of the stakeholder on the subject matter.

This followed by the relationship between Performance of affordable housing projects in Trans Nzoia County, Kenya and Risk management, ($r= 0.705$, $p\text{-value} = 0.000 < 0.05$). This postulated that increase in stakeholder engagement in risk management would results to increase in performance of affordable housing projects in Trans Nzoia County. Adan (2012) found that CDFC, PMC and government officials' role in project implementation contributed most to project performance. However, Ouma and Mburu (2023) established that stakeholders' participation in project implementation had no significant influence on sustainability of CDF projects.

This was followed by the relationship between Performance of affordable housing projects in Trans Nzoia County, Kenya and project conceptualization, ($r= 0.647$, $p\text{-value} = 0.000 < 0.05$). This implied that increase in stakeholder engagement in project conceptualization would results increase in Performance of affordable housing projects in Trans Nzoia County, Kenya. Oyugah and Onyango (2019)

indicated that stakeholder involvement in monitoring and evaluation leads to improved performance in construction of road projects in the County

The weakest relationship is Project monitoring and evaluation and Performance of affordable housing projects in Trans Nzoia County, Kenya ($r= 0.524$, $p\text{-value} = 0.000 < 0.05$) indicating that there was a statistically significant moderate positive correlation between Project monitoring and evaluation and the performance of affordable housing projects in Trans Nzoia County, Kenya. This suggested that there is improvement in the performance of affordable housing projects in Trans Nzoia County, Kenya as a results of stakeholders engagement in project monitoring and evaluation. Waithera (2020) found that involvement of stakeholders in evaluation and monitoring had significantly affected project performance Similarly, Ruwa (2022) found that stakeholder's involvement in evaluation and monitoring has a positive impact on performance of project. Stakeholders are able to hold implementers accountable thereby contributing to efficiency in terms of time, cost and assuring project sustainability.

Multiple Linear Regression Analysis

Multiple regression tries to figure out whether a set of variables will predict a single dependent variable (Mugenda & Mugenda, 2008). Multiple regression was used in this case since there were multiple independent variables in the sample. This study was interested in finding out whether and how project conceptualization, risk management, project implementation, project monitoring and evaluation influence Performance of affordable housing projects in Trans Nzoia County, Kenya. The four independent variables were considered together (one equation) as predictors of Performance of affordable housing projects in Trans Nzoia County, Kenya. A multiple linear regression model was used to test the significance of the influence of the independent variables on the dependent variable.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.756 ^a	.571	.536	.68437	.571	15.991	4	48	.000

a. Predictors: (Constant), Risk management, Monitoring and evaluation, Project conceptualization, Project implementation
b. Dependent Variable: Performance of affordable housing projects in Trans Nzoia County, Kenya

The results in table 6 shows an R square of 0.571, thus we infer that the study model explains 57.1% of the variations in the Performance of affordable housing projects in Trans Nzoia County, Kenya while other factors not in this study model accounts for 42.9%, thus, it is a good study model. These results are in agreement with Luvuga and Ngari (2019) who sought establish the determinants of performance of affordable housing projects in Trans Nzoia County, Kenya in informal settlements in Nairobi

City County, Kenya. Stakeholder involvement was the most significant determinant for successful performance of affordable housing projects in Trans Nzoia County, Kenya at National Housing Corporation in Kenya. Similar results were also obtained by Kimanzi (2020) who established a significant influence of stakeholder involvement on timely completion of public houses constructed in Kenya

Table 7: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	29.958	4	7.490	15.991	.000 ^b
Residual	22.482	48	.468		
Total	52.440	52			

a. Dependent Variable: Performance of affordable housing projects in Trans Nzoia County, Kenya
b. Predictors: (Constant), Risk management, Monitoring and evaluation, Project conceptualization, Project implementation

Further, ANOVA results in table 7 also shows that the F-statistical value is significant ($F=15.991$, significant at $p<.001$), thus confirming the fitness of the model. That is, from the study model, the significant F value show that the four independent variables (risk management, project conceptualization, project implementation, project monitoring and evaluation) are indeed different from each other and that they affect the dependent variable performance of affordable housing projects in Trans Nzoia County, Kenya) in varied ways.

Basing on the findings in Table 7, the study observed that the Stakeholder engagement had a significant partial influence in predicting Performance of affordable housing projects in Trans Nzoia County, Kenya as indicated by the significant

unstandardized beta coefficients: Project conceptualization had $\beta = 0.204$, $t = 2.519$, p-value = $0.001 < 0.05$, Monitoring and evaluation had $\beta = 0.112$, $t = 8.615$, p-value = $0.000 < 0.05$ and Risk management had $\beta = 0.242$, $t = 2.327$, p-value = $0.004 < 0.05$ which were considered to be significant at 5% level of significance whereas project implementation had $\beta = 0.427$, $t = 3.028$, p-value = $0.002 < 0.05$ which was considered significant at 5% level of significance. The constant was found to be insignificant, that is, $\beta = -0.286$, $t = -0.605$, p-value = $0.548 > 0.05$; this indicates that apart from the four Stakeholder engagement (Project conceptualization, Project implementation, Monitoring and evaluation and Risk management), there are other variables, not included in the model, that could possibly influence Performance

of affordable housing projects in Trans Nzoia County, Kenya, thus paving way for further research

to be done in this area.

Table 8: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.286	.473		-.605	0.548
Project conceptualization	0.204	0.081	0.170	2.519	0.001
Project implementation	0.427	0.141	0.364	3.028	0.003
Monitoring and evaluation	0.112	0.013	0.104	8.615	0.000
Risk management	0.242	0.104	0.200	2.327	0.004

a. Dependent Variable: Performance of affordable housing projects in Trans Nzoia County, Kenya

Multiple Linear Regression model equation that was used to predict the Performance of affordable housing projects in Trans Nzoia County, Kenya when given the Stakeholder engagement (Project conceptualization, Project implementation, Monitoring and evaluation and Risk management) was:

$$Y = -0.286 + 0.203 PC + 0.427PI + 0.112ME + 0.242RM$$

Where;

Y = Performance of affordable housing projects in Trans Nzoia County, Kenya

PC = Project conceptualization

PI = Project implementation

ME = Monitoring and evaluation

RM = Risk management Practice

The first hypothesis of the study sought to examine the significance of the causal and effect relationship between project conceptualization and performance of affordable housing projects in Trans Nzoia County, Kenya. The researcher sought to test for the following hypothesis;

H₀₁: There is no significant influence of project conceptualization on performance of affordable housing projects in Trans Nzoia County, Kenya.

Basing on the results indicated in Table 8, the regression Coefficient results showed that $\beta = 0.204$, $p = 0.001 < 0.05$; therefore, project conceptualization had a statistically significant influence on the Performance of affordable housing projects in Trans

Nzoia County, Kenya. This indicates that a unit improvement in the Project conceptualization was likely to result to an improvement in the Performance of affordable housing projects in Trans Nzoia County, Kenya by 20.4%. The results reiterate the importance of stakeholder engagement in project conceptualization in performance of affordable housing projects in Trans Nzoia County, Kenya. According to the results, stakeholders are key in feasibility study, project design and project planning. The above sentiments are supported by Matu, Kyalo, Mbugua and Mulwa (2020) who found that participation in project initiation had a positive and significant influence on the completion of urban road transport infrastructure projects in Kenya. The study established that there was a positive influence of participation in project initiation on completion of urban road transport infrastructure projects in Kenya. However, Siborurema, Shukla and Mbera (2020) established that stakeholders participation in project conceptualization negatively influence performance of projects in Rwanda, a case of of Bukomane-Gikoma road.

The second hypothesis of the study sought to establish the significance of the causal and effect relationship between Project implementation and Performance of affordable housing projects in Trans Nzoia County, Kenya. The hypothesis was:

H₀₂: There is no significant influence of project implementation on performance of affordable housing projects in Trans Nzoia County, Kenya.

The regression Coefficient results showed that $\beta = 0.427$, $p = 0.003 < 0.05$; therefore, project implementation had a statistically significant influence on the Performance of affordable housing projects in Trans Nzoia County, Kenya. This indicates that a unit improvement in the Project implementation was likely to result to an improvement in the Performance of affordable housing projects in Trans Nzoia County, Kenya by 42.7%. Given the above findings, the study notes that, it is crucial to have people selected as stakeholders benefit from projects implemented through participation during project implementation process. Also, the project team or organization selected should hold a position from which they can influence the project implementation through allocation of resources, communication and execution of planned activities. That is, stakeholder should have requisite skills to handle the project and freely voice their concerns if need be before decisions are made. The findings support the previous studies, including Musau (2020) who found that stakeholder involvement highly influences successful implementation of water projects in Makueni, County, Kenya. Gumbe (2022) indicated that stakeholders involvement have a positive influence on project implementation. However, Ouma and Mburu (2023) established that stakeholders' participation in project implementation had no significant influence on sustainability of CDF projects.

The third hypothesis of the study sought to examine the significance of the causal and effect relationship between Monitoring and evaluation and performance of affordable housing projects in Trans Nzoia County, Kenya. The researcher sought to test for the following hypothesis;

H₀₃: There is no significant influence of monitoring and evaluation on performance of affordable housing projects in Trans Nzoia County, Kenya.

The regression Coefficient results showed that $\beta = 0.112$, $p = 0.000 < 0.05$; hence monitoring and evaluation had a statistically significant influence on the Performance of affordable housing projects in

Trans Nzoia County, Kenya. This implies that a unit improvement in the Monitoring and evaluation was likely to result to an improvement in the Performance of affordable housing projects in Trans Nzoia County, Kenya by 11.2%. The above findings demonstrate that performance of affordable housing projects in Trans Nzoia County, Kenya is positively influenced by Monitoring and evaluation. The study findings affirms stakeholders engagement during monitoring and evaluation in terms of routine monitoring, review processes, project evaluations and reporting in regard to project progress. The findings affirmed other previous studies. For instance, Oyugah and Onyango (2019) indicated that stakeholder involvement in monitoring and evaluation leads to improved performance in construction of road projects in the County. Similar results were also reported by Makau, Mackenzi and Nicole (2018) who established that established a significant influence of stakeholder participation in utilization of M&E results on performance of fish farming projects.

The fourth hypothesis of the study sought to establish the influence of Risk management on Performance of affordable housing projects in Trans Nzoia County, Kenya, the researcher sought to test for the following hypothesis;

H₀₄: There is no significant influence of risk management on performance of affordable housing projects in Trans Nzoia County, Kenya.

The regression Coefficient results showed that $\beta = 0.242$, $p = 0.004 < 0.05$; hence Risk management had a statistically significant influence on the Performance of affordable housing projects in Trans Nzoia County, Kenya. This indicates that a unit improvement in the Risk management was likely to result to an improvement in the Performance of affordable housing projects in Trans Nzoia County, Kenya by 24.2%. This implies that performance of affordable housing projects in Trans Nzoia County, Kenya depends on early identification and evaluation of risk which aids in development of risk mitigation plan that reduce the impact of

unexpected events. It is important that the project team to always consider potential risks in the planning phase and weigh against the potential benefits. The study established that stakeholders are vital in regards to project risk identification, risk assessment, risk control and mitigation. The findings above are in commensuration with previous researches. Maina and Kimutai (2018) established that stakeholder involvement in risk

management has positive and significant and thus these factors determine project performance. Similarly, Maweu (2020) concluded that there is a positive and significant relationship between the level of participation and security. However, in another study, Sichone (2020) showed that stakeholder's engagement in risk management was strongly but negatively correlated to project cost.

Table 9: Results of the Hypothesis Tests

S/No	Hypothesis	Decision
H ₀₁	There is no significant influence of project conceptualization on performance of affordable housing projects in Trans Nzoia County, Kenya.	Reject H ₀₁
H ₀₂	There is no significant influence of project implementation on performance of affordable housing projects in Trans Nzoia County, Kenya.	Reject H ₀₂
H ₀₃	There is no significant influence of monitoring and evaluation on performance of affordable housing projects in Trans Nzoia County, Kenya.	Reject H ₀₃
H ₀₄	There is no significant influence of risk management on performance of affordable housing projects in Trans Nzoia County, Kenya.	Reject H ₀₄

CONCLUSIONS AND RECOMMENDATIONS

As per the findings of the study, it can be concluded that all the independent variables (project conceptualization, project implementation, monitoring and evaluation and risk management) in the study influence performance of affordable housing projects in Trans Nzoia County, Kenya (dependent variable). The relationship was confirmed through correlation and regression analysis which revealed that there was a positive significant linear relationship between project conceptualization, monitoring and evaluation and risk management and Performance of affordable housing projects in Trans Nzoia County, Kenya.

Specifically, the study concluded that there is significant influence of project conceptualization on performance of affordable housing projects in Trans Nzoia County, Kenya. The findings of the study show that stakeholder identification at project conceptualization promoted the engagement of the stakeholders which eventually influences the overall Performance of affordable housing projects in Trans Nzoia County, Kenya. Stakeholders were part of the initial studies that examined the worth and feasibility of proposed interventions.

The study concluded that there is significant influence of project implementation on performance of affordable housing projects in Trans Nzoia County, Kenya. This implied that increase in stakeholder engagement in project implementation would results to improvement in performance of affordable housing projects in Trans Nzoia County, Kenya. This implies that key stakeholders should participate in the review and implementation of project activities through site inspections and regular site meetings.

The study concluded that there is significant influence of monitoring and evaluation on performance of affordable housing projects in Trans Nzoia County, Kenya. This implied that increase in stakeholder engagement in monitoring and evaluation would results to improvement in performance of affordable housing projects in Trans Nzoia County, Kenya. Stakeholders have been instrumental in the routine monitoring of the project. Further, stakeholders have been so involved in all the assessments appertaining to this project.

The study concluded that there is significant influence of project risk management on

performance of affordable housing projects in Trans Nzoia County, Kenya. This implied that increase in stakeholder engagement in project risk management would result to improvement in performance of affordable housing projects in Trans Nzoia County, Kenya. Stakeholders were engaged in risk management practices such as risk identification, risk assessment, risk mitigation and risk monitoring and controlling. Even though risk identification remains top on the list, there is critical need to engage in proper risk assessment, risk mitigation and then risk monitoring and evaluation.

The study recommended that government institutions and top management of housing Construction Company should engage stakeholders in project conceptualization, this should be done by carrying out an analysis on the projects affecting the public, and involving them in feasibility study and the preliminary project approval, hence having a positive effect on the outcome of the project.

This study further recommended that stakeholders be engaged in project implementation through involvement in selection of project teams to make sure those running the project are well suited to understand the needs and specification of the community, the stakeholders should also be constantly updated on the progress of public projects. The study further recommends that the management be more transparent and committed to work with stakeholders in supervising the upgrading of public projects.

This study recommended that stakeholder's engagement in monitoring and evaluation be effected always as it is an important part of the project as it helps in ensuring that correction of

errors in construction and upgrading of project. The study further recommends that stakeholders should be given a chance to actively be involved in development of a tracking system for the project.

The study established that stakeholder engagement in risk management significantly influence performance of affordable housing projects in Trans Nzoia County, Kenya. Therefore, the study recommended that construction firms should practically engage various stakeholders in risk management practices for proper completion housing construction projects. To achieve this, there is need for both national government and county government to come up with structures, policies and guideline that would enhance stakeholder engagement during project risk management.

Suggestions for Further Research

Future studies could explore the influence of stakeholder engagement on affordable housing project performance in other counties or regions across Kenya to allow for broader generalization and comparative analysis across different governance, economic, and social settings.

While this study relied on structured questionnaires for data collection, future research could apply a mixed-methods approach incorporating interviews, focus groups, and document reviews to gain deeper qualitative insights into stakeholder engagement practices and challenges.

A comparative study could be undertaken to assess how stakeholder engagement affects implementation in other infrastructure sectors (e.g., health, education, roads) relative to the housing sector to reveal sector-specific dynamics and lessons

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