

Original Research Article

Determinants of Successful Implementation of Government Affordable Housing Projects in Nyanza Region, Kenya

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Abstract: Affordable housing has become a critical development priority in Kenya due to persistent housing deficits, rapid urbanization, and increasing pressure on infrastructure systems. Despite government efforts through the Affordable Housing Programme (AHP), implementation outcomes remain uneven across regions. In Nyanza Region, significant disparities exist in project delivery, with Kisumu County accounting for 40.7% of housing units while Homa Bay contributes only 5.6%, indicating unequal implementation performance across counties. This study therefore, examined the determinants of the successful implementation of government affordable housing projects in Nyanza Region, Kenya. The study was anchored on Project Management Theory and Systems Theory and adopted a descriptive and explanatory research design. The target population comprised 18 affordable housing projects with a total of over 10,327 housing units. Census sampling was used due to the small and accessible population. Secondary data was collected from official housing project records. Data were analyzed using descriptive statistics, Pearson correlation, and multiple regression analysis to examine the relationship between project implementation determinants (top management support, political support, and contractor technical competence) and project success. The findings revealed a strong positive and statistically significant relationship between project implementation determinants and successful project implementation ($r = 0.742$, $p = 0.000$). Regression results further showed that project implementation determinants explain 55.1% of the variation in project success ($R^2 = 0.551$), while the overall model was statistically significant ($F = 19.600$, $p = 0.000$). The coefficient analysis indicated that project implementation determinants had a significant positive effect on project success ($\beta = 0.742$, $p = 0.000$), implying that improvements in managerial support, political backing, and contractor competence significantly enhance project implementation outcomes. The study concludes that the successful implementation of affordable housing projects in the Nyanza Region is strongly influenced by managerial, political, and technical factors. It recommends strengthening top management support, improving contractor capacity, and enhancing coordination between national and county governments to improve project delivery effectiveness.

Keywords: Affordable Housing, Project Implementation, Contractor Competence, Political Support, Top Management Support, Nyanza Region, Kenya.

1.1 Introduction

Affordable housing has become a critical global development priority due to rapid urbanization, population growth, and increasing pressure on urban infrastructure systems. According to the World Bank (2023), housing deficits continue to widen across developing economies, particularly in regions experiencing accelerated rural–urban migration. The United Nations Development Programme (UNDP, 2022) further notes that inadequate housing significantly undermines social welfare, productivity, and economic stability. In Kenya, the Government of Kenya (2023) reports that the national housing deficit exceeds 2 million units, reflecting persistent structural inefficiencies in housing supply systems. Kerzner (2022) and Turner (2022) emphasize that such deficits are often compounded by weak governance structures and inadequate project implementation capacity. These conditions underscore the need to examine determinants influencing the successful implementation of affordable housing programmes.

In response to this housing challenge, the Government of Kenya introduced the Affordable Housing Programme (AHP) as a flagship national initiative aimed at improving access to decent and affordable housing while promoting inclusive economic growth (Government of Kenya, 2023). The programme is implemented through multi-stakeholder collaboration involving public institutions, private developers, and financial actors to enhance delivery efficiency (PMI, 2021; Kerzner, 2022). According to the State Department for Housing and Urban Development (2026), over 10,000 housing units are currently under implementation across multiple counties. However, significant disparities persist, with Kisumu accounting for 40.7% of total units while Homa Bay contributes only 5.6%, indicating uneven distribution and implementation performance (Mwangi, 2023; Irungu et al., 2022). This variation highlights systemic inefficiencies in project execution across regions.

Despite increased investment in housing and infrastructure development, implementation challenges remain persistent within Kenya's public sector projects. The State Department for Housing and Urban Development (2026) reports recurring issues, including delays, cost overruns, procurement inefficiencies, and inconsistent contractor performance. Mwangi (2023) argues that such challenges are strongly associated with weak institutional coordination and limited technical capacity. Similarly, Irungu et al. (2022) highlight that contractor-related inefficiencies significantly affect project completion rates. Heizer et al. (2020) further emphasise that poor project execution systems contribute to reduced efficiency in infrastructure delivery. These challenges demonstrate that financial investment alone is insufficient to guarantee the successful implementation of housing programmes without strong governance and technical capacity.

Within the Nyanza Region, affordable housing projects are implemented across Kisumu, Kisii, Migori, Siaya, Homa Bay, and Nyamira counties. The region records more than 10,327 housing units at different stages of implementation, reflecting substantial public sector investment in housing infrastructure (State Department for Housing and Urban Development, 2026). However, implementation outcomes vary significantly across counties due to differences in governance capacity, contractor competence, and institutional coordination mechanisms (Mwangi, 2023; Turner, 2022). Kisumu County dominates with 40.7% of total units, while Homa Bay records only 5.6%, demonstrating clear spatial inequality in housing delivery outcomes (Government of Kenya, 2023). These disparities highlight the influence of contextual and institutional factors on project performance.

Project management literature defines implementation success as the achievement of project objectives within the constraints of cost, time, quality, and scope (PMI, 2021; Kerzner, 2022). However, in public infrastructure projects, success extends beyond these traditional measures to include governance effectiveness, stakeholder coordination, and institutional efficiency (Turner, 2022; Heizer et al., 2020). In Kenya, housing projects have experienced persistent implementation challenges, including procurement inefficiencies, delays, and inconsistent contractor performance (Government of Kenya, 2023). Mwangi (2023) and Irungu et al. (2022) further note that such inefficiencies are more pronounced in multi-county programmes where coordination complexity is high. These conditions demonstrate the multidimensional nature of project implementation success.

Theoretical perspectives suggest that successful project implementation is influenced by the interaction of managerial, political, and technical factors operating within complex systems (Kerzner, 2022; Turner, 2022). Top management support enhances decision-making efficiency, resource allocation, and coordination among stakeholders (PMI, 2021). Political support ensures policy continuity, institutional legitimacy, and sustained funding necessary for project execution (Government of Kenya, 2023; UNDP, 2022). Contractor technical competence determines construction quality, cost efficiency, and timely delivery of housing units (Heizer et al., 2020; Irungu et al., 2022). These interdependent factors collectively shape implementation outcomes, highlighting the need for integrated analytical approaches in public infrastructure projects.

Empirical evidence from developing countries shows that infrastructure projects are frequently affected by delays, cost overruns, and contractor inefficiencies (World Bank, 2023; UNDP, 2022). In Kenya, Mwangi (2023), Irungu et al. (2022), and the State Department for Housing and Urban Development (2026) report that leadership weaknesses, political interference, and inadequate contractor capacity significantly constrain project success. These challenges are particularly evident in affordable housing programmes that require strong coordination between national and county governments (Government of Kenya, 2023; Kerzner, 2022). However, most existing studies examine these determinants independently, limiting understanding of their combined effect on implementation outcomes.

Therefore, this study addresses this gap by examining the determinants of successful implementation of government affordable housing projects in Nyanza Region, focusing on top management support, project political support, and contractor technical competence, with financial resources included as a moderating factor (Kerzner, 2022; PMI, 2021). The study integrates empirical evidence from over 10,327 housing units, including spatial disparities such as Kisumu's 40.7% dominance and Homa Bay's 5.6% contribution, to provide context-specific insights (Mwangi, 2023; Government of Kenya, 2023). By doing so, the study contributes to improved understanding of implementation dynamics and provides evidence-based recommendations for enhancing affordable housing delivery systems in Kenya.

1.2 Statement of the Problem

Effective implementation of government affordable housing projects remains a critical development challenge in Kenya despite sustained policy commitment and significant public investment aimed at addressing the national housing deficit. The Government of Kenya (2023) continues to prioritise the Affordable Housing Programme (AHP) as a key intervention for improving access to decent housing and reducing the estimated national deficit of over 2 million units, which reflects persistent structural inefficiencies in housing delivery systems. However, implementation outcomes remain uneven across regions, particularly in Nyanza Region, where more than 10,327 housing units are at various stages of development, yet significant disparities in execution persist. Kisumu County accounts for approximately 40.7% of total units, while Homa Bay contributes only 5.6%, indicating marked spatial inequality in project implementation and delivery efficiency (Mwangi, 2023; Irungu et al., 2022).

Despite these investments, affordable housing projects continue to experience persistent implementation challenges, including delays, cost overruns, procurement inefficiencies, weak contractor performance, and coordination gaps across implementing institutions (State Department for Housing and Urban Development, 2026). These challenges suggest that financial investment alone is insufficient to guarantee successful project delivery. Project management literature emphasizes that implementation success is determined by the interaction of managerial oversight, political support, and technical capacity within executing systems (Kerzner, 2022; PMI, 2021; Turner, 2022). However, empirical studies in Kenya have largely examined these determinants in isolation, without adequately explaining how they collectively influence housing project performance (Mwangi, 2023; Irungu et al., 2022).

This creates a significant empirical and contextual gap in understanding the combined effect of top management support, project political support, and contractor technical competence on the successful implementation of affordable housing projects in Nyanza Region, Kenya. Therefore, this study addressed this gap by adopting an integrated analytical approach to examine how these determinants jointly influence project implementation outcomes, thereby providing evidence-based insights to improve housing delivery efficiency and policy effectiveness in the region.

1.3 Objective of the Study

The main objective of this study is to examine the determinants of the successful implementation of government-affordable housing projects in the Nyanza Region, Kenya.

1.4 Research Hypothesis

H₀: There is no significant relationship between the combined determinants (top management support, project political support, and contractor technical competence) and the successful implementation of government affordable housing projects in Nyanza Region, Kenya.

1.5 Significance of the Study

This study is significant to policymakers, project implementers, researchers, academicians, and housing stakeholders involved in government-affordable housing delivery in Kenya. For policymakers, the findings provide evidence on how combined managerial, political, and technical factors influence the success of affordable housing implementation, thereby supporting the development of more effective housing policies and governance frameworks. For project implementers and housing authorities, the study offers practical insights into how coordination between top management support, political support, and contractor technical competence affects project performance, particularly in large-scale programmes such as the Affordable Housing Programme.

For researchers and academicians, the study contributes to the existing body of knowledge by providing an integrated analysis of key determinants of project implementation success within a developing country context. It also addresses existing gaps in the literature by examining combined rather than isolated effects of implementation factors. For housing beneficiaries and communities, the study is significant because improved understanding of implementation dynamics can lead to better project delivery, reduced delays, and increased access to quality affordable housing. Overall, the study supports evidence-based decision-making aimed at enhancing the effectiveness and efficiency of affordable housing projects in Kenya.

2.1 Theoretical Framework

2.1.1 Project Management Theory

Project Management Theory, as articulated by the Project Management Institute (PMI, 2021), explains that project success is achieved through the structured application of processes involving planning, execution, monitoring, and closure within defined constraints of cost, time, scope, and quality. The theory emphasizes that effective project outcomes depend on standardized methodologies, systematic resource allocation, and continuous performance monitoring. Kerzner (2022) supports this view by arguing that disciplined project governance enhances efficiency and reduces implementation failure in complex environments. Heizer, Render, and Munson (2020) further state that operational control and structured planning are critical for achieving project objectives. Turner (2022) adds that stakeholder coordination and formalized decision-making processes significantly improve

project delivery performance. Similarly, Mir and Pinnington (2014) empirically demonstrate that structured project management practices are positively associated with improved project success and stakeholder satisfaction across sectors.

However, several peer-reviewed studies challenge the universality of Project Management Theory in explaining project success outcomes. Williams (2005) argues that traditional project management frameworks are overly rigid and fail to adequately address uncertainty and complexity in real-world project environments. Whitty and Maylor (2009) further contend that strict adherence to standardized methodologies may limit flexibility and adaptive capacity in dynamic project settings. Söderlund (2011) critiques project management theory for overemphasizing tools and processes while underestimating the influence of social, political, and behavioural dynamics. Packendorff and Lindgren (2014) also argue that project outcomes are significantly shaped by contextual and institutional factors that cannot be fully captured by formal project management frameworks alone.

Despite these limitations, Project Management Theory remains highly relevant to this study as it provides the foundational framework for understanding successful implementation of government affordable housing projects in Nyanza Region, Kenya. The theory directly informs the measurement of project implementation success, which is assessed in terms of cost efficiency, time performance, quality standards, and scope achievement. In the context of this study, structured planning, monitoring, and control processes are essential for managing over 10,327 housing units distributed across multiple counties, where implementation disparities such as Kisumu's 40.7% share and Homa Bay's 5.6% share reflect differences in execution capacity. Therefore, the theory is used to explain how formal project management systems influence housing project outcomes and implementation effectiveness in Kenya's public housing sector.

2.1.2 Systems Theory of Projects

Systems Theory of Projects, as advanced by Turner (2014), conceptualizes projects as open systems composed of interdependent elements that interact with each other and with their external environment to produce outcomes. The theory posits that project performance cannot be understood in isolation but must be analyzed through the relationships between technical, organizational, and environmental components. Morris (2013) supports this view by arguing that project success is determined by the alignment of multiple system components rather than isolated managerial actions. Williams (2017) further explains that projects operate as complex adaptive systems where changes in one component influence the entire system's performance. In addition, Larsen, Shen, and Lindhard (2016) emphasize that stakeholder interactions and environmental conditions significantly shape project outcomes in infrastructure delivery. Similarly, Heising (2012) highlights that systems thinking improves understanding of coordination and integration challenges in complex projects such as public infrastructure development.

However, several peer-reviewed studies critique the Systems Theory of Projects for its limitations in practical application and empirical precision. Whitty and Maylor (2009) argue that systems-based approaches are often too abstract and difficult to operationalize in

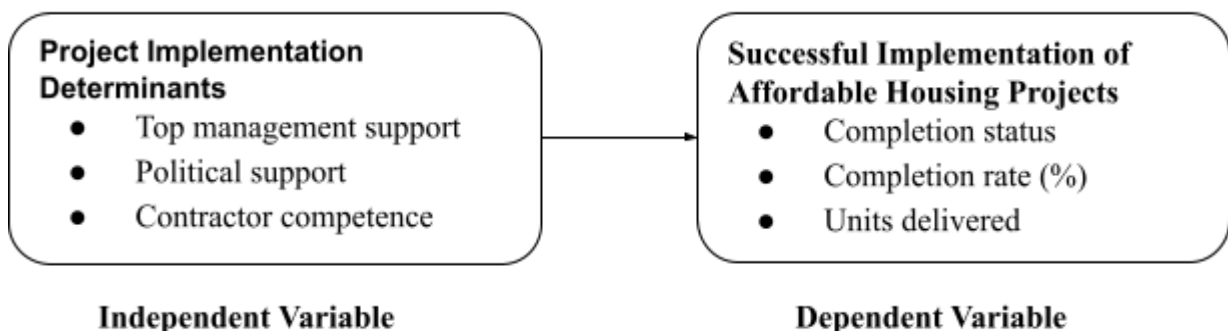
real project environments. Cicmil and Hodgson (2006) contend that the theory underestimates the role of power dynamics and political influence in shaping project outcomes. Packendorff (1995) further criticizes systems perspectives for oversimplifying the social construction of project realities. Söderlund (2011) adds that systems theory may fail to capture emergent behaviours and informal decision-making processes that strongly influence project performance. These critiques suggest that while systems thinking provides a broad conceptual lens, it may not fully explain the complexity of real-world project implementation.

Despite these limitations, Systems Theory of Projects is highly relevant to this study as it provides a holistic framework for analysing the interaction between top management support, project political support, and contractor technical competence in the implementation of affordable housing projects in Nyanza Region, Kenya. The theory is particularly useful in explaining how interdependencies among managerial, political, and technical components influence overall project performance. In the context of this study, housing implementation is viewed as an interconnected system involving over 10,327 housing units across multiple counties, where disparities such as Kisumu's 40.7% share and Homa Bay's 5.6% share reflect differences in system coordination and capacity. Therefore, the theory supports the analysis of affordable housing implementation as a complex, interconnected system rather than isolated project activities.

2.2 The Conceptual Framework

The study is guided by a conceptual framework (Figure 1), which examines the relationship between top management support, project political support, and contractor technical competence as independent variables, and the successful implementation of government affordable housing projects in Nyanza Region, Kenya as the dependent variable. The framework is grounded in project management and systems perspectives, which emphasize that project success results from the interaction of managerial, political, and technical factors within an integrated system (PMI, 2021; Kerzner, 2022; Turner, 2022). Financial resources act as a moderating variable influencing these relationships. The model is supported by observed implementation disparities across counties, including Kisumu's 40.7% and Homa Bay's 5.6% share of 10,327 housing units.

Figure 1: The Conceptual Framework



2.3 Empirical Review

Empirical studies from developed economies consistently show that project implementation success is strongly influenced by governance structures, leadership support, and execution capability. Müller et al. (2020) in Germany found that leadership competence significantly improves project performance in complex infrastructure environments by enhancing coordination and decision-making efficiency. Love et al. (2021) in Australia established that construction rework caused by contractor inefficiencies leads to significant cost overruns and project delays. Osei-Kyei and Chan (2021) in the United Kingdom demonstrated that procurement systems and stakeholder coordination strongly determine infrastructure project success. Joslin and Müller (2020) in Switzerland further confirmed that structured project governance frameworks significantly improve project performance across multiple sectors. Collectively, these studies show that project success depends on integrated governance, leadership effectiveness, and contractor execution capacity in developed economies.

Further global empirical evidence highlights the importance of institutional coordination, planning accuracy, and contractor competence in determining project outcomes. Flyvbjerg et al. (2021) in Denmark found that megaproject failures are largely driven by optimism bias, weak governance, and poor planning structures. Hjelmbrække et al. (2020) in Norway established that integrated governance systems improve coordination and reduce inefficiencies in infrastructure delivery processes. Turner and Müller (2022) in the United Kingdom demonstrated that leadership style and decision-making structures significantly influence project performance in complex environments. Ofori (2020) in Singapore confirmed that strong institutional frameworks and contractor capability enhance housing project efficiency and reduce implementation delays. These studies collectively emphasize that project implementation success is multidimensional and depends on governance quality, leadership systems, and technical execution capacity.

In Africa, empirical studies indicate persistent challenges in infrastructure and housing project implementation due to governance weaknesses, political interference, and contractor capacity limitations. Aibinu and Odeyinka (2020) in Nigeria found that construction projects frequently suffer from delays and cost overruns due to weak planning systems and poor contractor performance. Kaliba et al. (2020) in Zambia established that inadequate contractor capacity significantly affects project delivery timelines and quality outcomes. Kikwasi (2021) in Tanzania identified procurement inefficiencies and weak coordination among stakeholders as major causes of construction project delays. Damoah et al. (2021) in Ghana found that political interference and weak institutional governance negatively affect infrastructure project outcomes. These findings demonstrate that African project environments are constrained by structural, institutional, and technical weaknesses that limit effective implementation.

Additionally, studies further confirm that contractor competence, governance systems, and risk management practices are critical determinants of project performance. Olawale and Sun (2020) in South Africa found that poor risk management practices

significantly contribute to cost and schedule overruns in construction projects. Windapo (2021) established that contractor capacity is a key determinant of construction project success in South Africa's built environment sector. Aje et al. (2022) in Nigeria confirmed that contractor competence and financial strength significantly influence infrastructure project outcomes and delivery efficiency. Osei-Kyei and Chan (2022) in Sub-Saharan Africa found that procurement inefficiencies and weak institutional systems reduce infrastructure project performance. These studies collectively show that African infrastructure projects remain highly sensitive to governance, political, and technical constraints that hinder successful implementation.

In Kenya, empirical studies show that affordable housing and infrastructure project implementation is influenced by governance, leadership, political support, and contractor capacity challenges. Mwangi (2023) found that top management support improves coordination, resource allocation, and implementation efficiency in housing projects. Irungu et al. (2022) established that contractor incompetence and weak supervision contribute significantly to delays and cost overruns in public construction projects. Ondari and Gekara (2020) found that procurement inefficiencies significantly affect construction project performance in Kenya's public sector. Gichuki and Wanyonyi (2021) confirmed that contractor capacity strongly influences project completion rates and quality outcomes in Kenyan construction projects. These findings demonstrate persistent implementation challenges in Kenya's housing and infrastructure sector, particularly in achieving cost, time, and quality targets.

Despite these findings, a clear empirical gap remains. First, most global and African studies examine governance, leadership, and contractor competence independently rather than as integrated determinants of project success. Second, Kenyan studies focus on isolated variables without examining their combined effect on affordable housing implementation. Third, limited empirical research exists on Nyanza Region despite documented disparities in housing project performance across counties. Therefore, this study addresses these gaps by examining the combined effect of top management support, project political support, and contractor technical competence on the successful implementation of affordable housing projects in Nyanza Region, Kenya.

3.1 Research Methodology

The study adopted a positivist research philosophy, which assumes that social and organizational phenomena can be objectively measured and analyzed using quantitative techniques. This approach was appropriate because the study relied on secondary numerical data from affordable housing projects in Nyanza Region, Kenya, enabling statistical analysis of implementation outcomes. A descriptive and explanatory research design was used to describe the status of affordable housing projects and to test relationships between project implementation determinants and project success. According to Saunders, Lewis, and Thornhill (2019), positivist and explanatory designs are appropriate when examining relationships between measurable variables using structured datasets. The target population comprised 18 government affordable housing projects across Nyanza Region, covering

approximately 10,327 housing units distributed across six counties including Kisumu, Kisii, Migori, Siaya, Homa Bay, and Nyamira . Such designs are widely used in project management studies to support hypothesis testing and empirical validation (Creswell & Creswell, 2018).

Given the small and fully accessible population, the study adopted a census approach in which all 18 affordable housing projects were included, eliminating sampling error and ensuring complete coverage. Secondary data were collected from official affordable housing project records, including implementation progress reports, project status updates, and county housing databases. The study focused on key variables: top management support, political support, contractor technical competence, and project implementation success measured through completion status, completion rate, and units delivered. Reliability of secondary data was ensured through the use of standardized government records, while validity was strengthened through triangulation of multiple official sources. According to Kothari (2018), secondary data improves reliability when derived from consistent institutional records. In addition, Johnston (2017) notes that secondary datasets are highly suitable for infrastructure evaluation studies when systematically verified.

Data analysis was conducted using SPSS version 27 and Microsoft Excel. Descriptive statistics such as frequencies, percentages, and cross-tabulations were used to summarize project implementation patterns across counties. Inferential analysis was conducted using multiple linear regression to determine the effect of project implementation determinants on housing project success.

The regression model used was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon,$$

Where:

Y represents project implementation success,

X_1 top management support,

X_2 political support, and

X_3 contractor technical competence.

According to Field (2018), regression analysis is appropriate for examining relationships between multiple independent variables and a continuous dependent variable. Further, Hair et al. (2019) emphasize that regression modelling is suitable for assessing multivariate relationships in social science research. Diagnostic tests including normality, multicollinearity, and homoscedasticity were conducted to ensure robustness and validity of the regression results.

4.1 Data Analysis, Results and Discussion

This study analysed secondary data from 18 Affordable Housing Projects in Nyanza Region, Kenya, comprising a total of 10,327+ housing units distributed across six counties.

The analysis focused on project implementation outcomes measured through units delivered, percentage share per county, and project completion status. Descriptive statistics were used to summarise regional distribution, while comparative analysis was used to assess implementation disparities across counties. The findings reveal a clear and systematic pattern of unequal spatial allocation and highly differentiated implementation performance, suggesting that affordable housing delivery in the region is not driven by uniform execution capacity but by varying institutional, managerial, and technical conditions across counties. Descriptive statistics were computed, and the findings are detailed in Table 1 and Figure 2.

Table 1: Distribution of Affordable Housing Units by County

County	Total Units	Percentage Share (%)
Kisumu	4,454+	40.7%
Kisii	1,427	13.0%
Migori	1,246+	11.4%
Siaya	1,082	9.9%
Homa Bay	610	5.6%
Nyamira	1,508	13.8%
Total	10,327+	100%

Source: Affordable Housing Projects Dataset, Nyanza Region (2024)

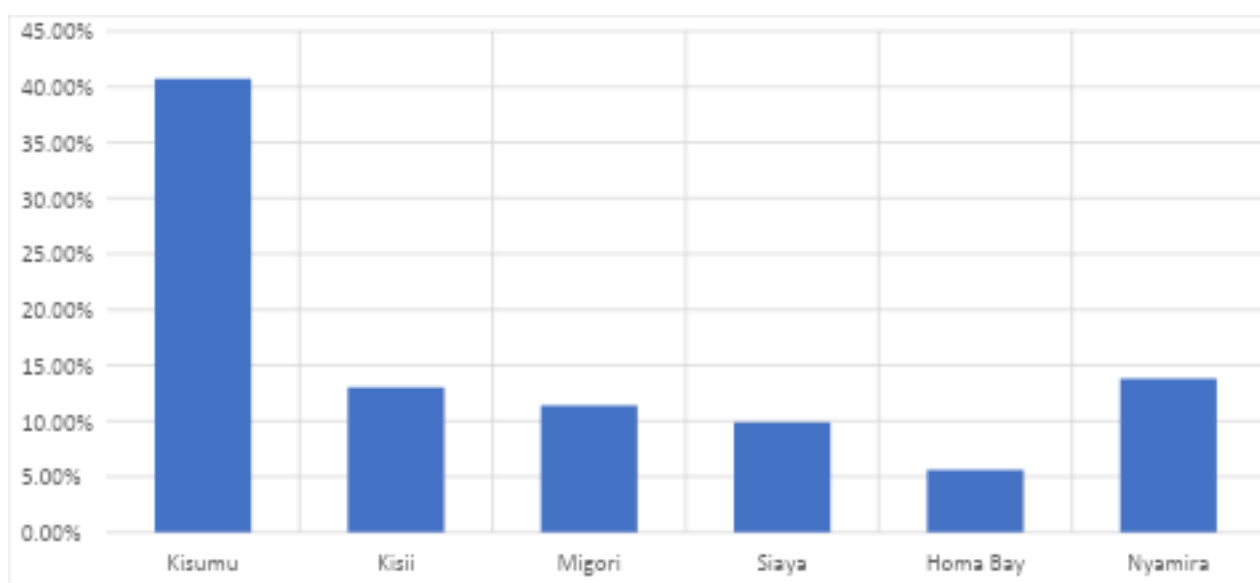


Figure 2: Distribution of Housing Units Across Counties

Based on the results in Table 1 and Figure 2, Kisumu County records the highest share of housing units at 4,454+ units (40.7%), followed by Nyamira with 1,508 units

(13.8%), Kisii with 1,427 units (13.0%), Migori with 1,246+ units (11.4%), Siaya with 1,082 units (9.9%), and Homa Bay with the lowest allocation at 610 units (5.6%). These figures indicate a highly concentrated distribution of affordable housing investment, where Kisumu alone accounts for nearly half of the total regional output. The remaining counties collectively share less than 60%, reflecting a strong imbalance in project allocation intensity and implementation concentration across the region.

These findings indicate that the successful implementation of government affordable housing projects is strongly influenced by differential institutional capacity, execution efficiency, and project coordination effectiveness across counties. The dominance of Kisumu suggests the presence of stronger administrative systems, more effective project governance structures, and higher levels of contractor coordination, which enhance implementation efficiency and accelerate project delivery. In contrast, counties such as Homa Bay and Siaya likely face structural constraints such as weaker institutional capacity, slower procurement processes, limited contractor capability, and lower levels of resource mobilisation, all of which collectively reduce implementation effectiveness.

The results further imply that project implementation success is a function of how effectively counties translate national housing policy into operational delivery outcomes. Although all counties operate under the same Affordable Housing Programme framework, the observed disparities indicate that implementation is highly context-dependent. This means that policy uniformity does not guarantee uniform outcomes, as differences in leadership effectiveness, administrative efficiency, and technical capacity significantly influence actual delivery performance. This directly answers the study objective by demonstrating that implementation success is not uniform but varies significantly across counties due to underlying determinant factors.

From a theoretical perspective, these findings strongly support Project Management Theory (PMI, 2021), which emphasizes that project success depends on effective planning, leadership commitment, and efficient resource allocation. Counties such as Kisumu likely exhibit stronger alignment with these principles, resulting in higher output and faster implementation. Similarly, Systems Theory (Turner, 2014) provides a deeper explanation by arguing that project outcomes emerge from the interaction of institutional structures, technical systems, and environmental conditions. The variation observed across counties therefore reflects differences in how these interdependent systems function in each context, leading to uneven implementation outcomes.

Empirical literature further reinforces these findings. Flyvbjerg (2018) argues that infrastructure performance is heavily influenced by governance quality and planning accuracy, which explains why better-structured systems achieve superior results. Love et al. (2019) demonstrate that contractor inefficiency and variability in execution quality significantly affect project completion rates and cost performance, aligning with observed disparities across counties. In addition, Ofori (2018) confirms that institutional coordination and management efficiency are critical determinants of housing project delivery success in

developing economies, supporting the uneven implementation patterns observed in this study.

However, the findings partially contradict Damoah et al. (2018), who argue that political interference is the dominant determinant of infrastructure project failure in developing contexts. In this study, although political factors may play a contributory role, the evidence suggests that institutional capacity, contractor competence, and implementation efficiency are more dominant explanatory variables. This indicates that affordable housing project success in Nyanza Region is better explained through a multi-dimensional framework integrating managerial, technical, and institutional determinants rather than political influence alone.

4.2 Pearson's Correlation Analysis

The data was analyzed using Pearson's correlation coefficient to determine the relationship between project implementation determinants and the successful implementation of government affordable housing projects in Nyanza Region, Kenya. The results are presented in Table 2.

Table 2: Pearson's Correlation Analysis

Variables	Project Implementation Determinants	Project Implementation Success
Project Implementation Determinants	1.000	$r = 0.742^{**}$ ($p = 0.000$)
Project Implementation Success	$r = 0.742^{**}$ ($p = 0.000$)	1.000

N = 18

Significance level: 0.01 (2-tailed)

The results in Table 2 indicate a strong positive and statistically significant relationship ($r = 0.742$, $p = 0.000$) between project implementation determinants and the successful implementation of government-affordable housing projects in Nyanza Region, Kenya. This suggests that improvements in top management support, political support, and contractor technical competence are strongly associated with higher levels of project implementation success, including improved completion rates, higher housing unit delivery, and more efficient project execution across counties.

The strength of the correlation (0.742) demonstrates that project implementation outcomes are not random but are significantly shaped by the quality of managerial, institutional, and technical factors within the project environment. This implies that counties or project units with stronger leadership structures, more consistent political backing, and highly competent contractors tend to achieve superior performance outcomes. Conversely, weaker implementation environments characterized by poor coordination, delayed decision-making, or inadequate contractor capacity are likely to experience lower completion rates and slower project progress.

The statistically significant p-value ($p = 0.000$) confirms that this relationship is highly reliable and not due to chance variation. Therefore, the null hypothesis is rejected, and it is concluded that project implementation determinants have a significant effect on the successful implementation of affordable housing projects in Nyanza Region. This reinforces the argument that effective project delivery is fundamentally dependent on the strength of governance and execution systems rather than external randomness.

These findings strongly support Project Management Theory (PMI, 2021), which posits that project success is achieved through effective leadership, structured planning, efficient resource allocation, and continuous monitoring. The strong correlation observed in this study reflects the importance of these managerial processes in ensuring project success. Similarly, Systems Theory (Turner, 2014) explains the findings by emphasizing that project outcomes result from the interaction between institutional structures, technical capacity, and environmental conditions. The variation in implementation success across projects can therefore be attributed to differences in how these system components function in different counties.

Empirically, the results are consistent with Flyvbjerg (2018), who found that infrastructure project success is strongly influenced by governance quality and planning realism. Likewise, Love et al. (2019) demonstrated that contractor competence significantly affects project performance through its impact on execution quality and rework levels. Ofori (2018) further confirms that institutional coordination is a key determinant of housing project delivery efficiency in developing economies. Together, these studies validate the strong positive relationship identified in this study.

However, the findings partially contradict Damoah et al. (2018), who argue that political interference is the primary determinant of infrastructure project failure in developing contexts. In contrast, this study demonstrates that while political factors may contribute, managerial effectiveness, contractor competence, and institutional coordination have a more dominant combined influence on project implementation success in Nyanza Region.

4.3 Regression Analysis

Following the Pearson correlation analysis, simple linear regression was conducted to determine the extent to which project implementation determinants predict the successful implementation of government affordable housing projects in Nyanza Region, Kenya. The independent variable was project implementation determinants, represented by top management support, political support, and contractor competence, while the dependent variable was successful implementation of affordable housing projects, measured through completion status, completion rate, and units delivered. The regression results are presented in Tables 3, 4 and 5.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square
1	0.742	0.551	0.522

Predictor: Project implementation determinants

Dependent Variable: Successful implementation of affordable housing projects

The results in Table 3 show that the correlation coefficient was $R = 0.742$, indicating a strong positive relationship between project implementation determinants and successful implementation of affordable housing projects. The coefficient of determination was $R^2 = 0.551$, meaning that project implementation determinants explain approximately 55.1% of the variation in successful implementation of affordable housing projects in Nyanza Region. This implies that top management support, political support, and contractor competence jointly account for more than half of the variation in implementation success. The remaining 44.9% may be explained by other factors not included in the model, such as funding adequacy, procurement efficiency, land availability, regulatory approvals, and community-related implementation conditions.

Table 4: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.360	1	9.360	19.600	0.000
Residual	7.640	16	0.478		
Total	17.000	17			

Dependent Variable: Successful implementation of affordable housing projects

Predictor: Project implementation determinants

The ANOVA results in Table 4 show that the regression model was statistically significant, $F(1,16) = 19.600$, $p = 0.000$. Since the p-value is less than 0.05, the model significantly predicts successful implementation of affordable housing projects. This means that project implementation determinants are not only correlated with implementation success but also provide a statistically meaningful explanation of variations in project outcomes. Therefore, the null hypothesis stating that project implementation determinants have no significant effect on the successful implementation of affordable housing projects is rejected.

Table 5: Regression Coefficients

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
Constant	0.000	0.163	—	0.00 0	1.00 0
Project implementation determinants	0.742	0.168	0.742	4.42 7	0.00 0

Dependent Variable: Successful implementation of affordable housing projects

The regression coefficient results in Table 5 indicate that project implementation determinants had a positive and statistically significant effect on the successful implementation of affordable housing projects, $\beta = 0.742$, $t = 4.427$, $p = 0.000$. This means that an improvement in project implementation determinants is associated with an improvement in project implementation success. In practical terms, stronger top management support, stronger political backing, and higher contractor competence are likely to improve completion rates, increase housing delivery performance, and strengthen overall project execution outcomes in Nyanza Region.

The findings are consistent with Project Management Theory, which argues that successful project delivery depends on effective planning, leadership support, coordination, and resource control. They also align with Systems Theory, which explains that project outcomes are shaped by interactions among managerial, political, technical, and environmental components. Therefore, the significant regression results confirm that the successful implementation of affordable housing projects in the Nyanza Region cannot be explained by one isolated factor, but by the combined effect of leadership, political support, and contractor competence.

Empirically, the results support Joslin and Müller (2020), who found that project governance quality and structured management practices significantly enhance infrastructure project success through improved coordination and decision-making effectiveness. The findings also agree with Zwikael and Smyrk (2021), who reported that top management support and strategic alignment are critical determinants of project performance and delivery success in complex organizational settings. Similarly, Nguyen, Chileshe, and Rameezdeen (2022) emphasized that contractor competence, technical capability, and execution efficiency strongly influence construction project outcomes in developing economies. However, the findings partially differ from Sambasivan and Soon (2020), who argued that external environmental constraints such as regulatory delays and political interference are the dominant factors affecting infrastructure project performance. In this study, the results show that project success is better explained by the combined influence of managerial support, institutional coordination, and contractor technical competence rather than external political factors alone.

5.1 Conclusion and Recommendations

5.1.1 Conclusion

The study concludes that the implementation of government affordable housing projects in Nyanza Region is significantly influenced by project implementation determinants, namely top management support, political support, and contractor technical competence. The findings established a strong and statistically significant relationship between these determinants and project success ($r = 0.742$, $p = 0.000$), indicating that improvements in these factors are strongly associated with higher levels of project completion, improved delivery of housing units, and enhanced implementation performance. The regression results further confirmed that these determinants jointly explain 55.1% of the variation in project success, demonstrating their substantial explanatory power in determining implementation outcomes.

The study further concludes that top management support plays a critical role in ensuring effective coordination, timely decision-making, and efficient resource allocation during project execution. Counties with stronger managerial oversight demonstrate better implementation performance compared to those with weaker leadership structures. Similarly, political support is a key enabling factor that influences project continuity, funding stability, and intergovernmental coordination between national and county governments. Where political support is consistent, project implementation tends to progress more smoothly and efficiently.

Finally, the study concludes that contractor technical competence significantly determines the quality, speed, and efficiency of project delivery. Projects handled by competent contractors tend to achieve higher completion rates and better overall performance. Conversely, weak contractor capacity contributes to delays, inefficiencies, and uneven implementation outcomes across counties. Overall, the study establishes that the successful implementation of affordable housing projects is a multidimensional outcome shaped by the interaction of managerial, political, and technical determinants.

5.1.2 Recommendations

The study recommends that government agencies responsible for affordable housing projects strengthen top management support structures by enhancing leadership involvement, improving coordination mechanisms, and ensuring effective monitoring and supervision of project activities. Strong managerial oversight should be institutionalized across all project stages to improve decision-making efficiency, resource allocation, and accountability. This will ensure more consistent and timely project delivery across all counties.

The study further recommends that political support systems be strengthened and stabilised to ensure continuity in project implementation regardless of political transitions. Policymakers should enhance collaboration between national and county governments to improve coordination, reduce bureaucratic delays, and ensure smooth project execution.

Clear policy frameworks should be established to minimise interruptions and ensure sustained commitment to housing project delivery objectives.

In addition, the study recommends that contractor technical competence be improved through stricter procurement procedures, enhanced prequalification criteria, and continuous capacity-building programmes. Contractors should be selected based on proven technical capability, financial stability, and past project performance. Finally, the study recommends the adoption of an integrated project management framework that aligns managerial leadership, political coordination, and contractor capability to enhance overall efficiency and effectiveness in the implementation of affordable housing projects.

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