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RELATIONSHIP BETWEEN FINANCIAL RISK MANAGEMENT PRACTICES AND THE PERFORMANCE OF REAL ESTATE HOUSING PROJECTS IN BUSIA COUNTY, KENYA

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Abstract

This study examined the influence of financial risk management practices—credit risk, inflation risk, interest rate risk, and liquidity risk—on the performance of residential construction projects in Busia County, Kenya, including their combined effect. Guided by the pragmatic paradigm, a mixed-methods research design was adopted. A sample of 328 respondents was selected from a population of 1,832 using Yamane's formula. Data was analyzed using descriptive statistics and multiple regression analysis. The findings revealed that all financial risk management practices had a positive and statistically significant influence on project performance, with liquidity risk management emerging as the strongest predictor. The combined model explained a substantial proportion of variance in project performance. The study concludes that effective financial risk management enhances efficiency, reduces delays, and improves cost control in housing projects. The study recommends the adoption of integrated financial risk management frameworks by real estate developers.

Keywords: Financial risk management, Project performance, Real estate construction, Environmental factors.

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Introduction and Background of the Study

Financial risk management plays a critical role in determining the success of construction projects worldwide, particularly in environments characterized by economic uncertainty and fluctuating market conditions. In developing countries such as Kenya, real estate construction projects are increasingly exposed to financial risks including inflation volatility, credit defaults, and liquidity constraints.

Despite the growing importance of risk management practices, many housing projects in counties such as Busia continue to experience cost overruns, delays, and reduced profitability. Existing studies have largely examined financial risks in isolation, with limited focus on their combined effect on project performance.

This study therefore examines the relationship between financial risk management practices and the performance of real estate housing projects in Busia County, Kenya.

The performance of real estate construction housing projects has attracted global attention due to the sector's high capital intensity, complexity, and exposure to financial uncertainties. Internationally, financial risk management practices are widely recognized as key determinants of project success, particularly in managing credit, inflation, interest rate, and liquidity risks. Inadequate financial risk management contributes to cost overruns, project delays, and reduced project viability (Project Management Institute [PMI], 2021; Flyvbjerg, 2021; Zaneldin & Ahmed, 2024; Su & Khallaf, 2022; Musarat et al., 2024). Conversely, integrated financial risk management frameworks enhance organizational resilience by enabling firms to anticipate and respond effectively to economic fluctuations (Shibani et al., 2022; Aung et al., 2023; Wibowo et al., 2024), highlighting the importance of proactive risk strategies.

In Africa, the construction industry faces persistent financial challenges arising from macroeconomic instability, limited access to credit, high inflation, and liquidity constraints. These risks significantly contribute to project delays, cost escalation, and abandonment (Agyekum & Mensah, 2020; Moyo & Dube, 2021; Ncube & Mhlanga, 2020; Tetteh & Agyeman, 2021; Ullah et al., 2026). Weak financial systems and unstable economic conditions further intensify these challenges, underscoring the need for structured and context-specific financial risk management approaches (Ewusi, 2021; Agyekum & Mensah, 2020; Moyo & Dube, 2021; Ullah et al., 2026).

In Kenya, the real estate sector plays a critical role in economic development but continues to face significant performance challenges. Financial risks—including credit, inflation, interest rate, and liquidity risks—substantially affect cost efficiency, project timelines, and sustainability (Mutunga & Ondara, 2024; Mwangi & Otieno, 2024; Karingi & Memba, 2023; Mwangi & Muturi, 2022; Otieno & Maina, 2023). Regulatory complexities, market fluctuations, and limited financing options further highlight the need for effective financial risk management, with structured strategies improving project outcomes (Mutunga & Ondara, 2024; Otieno & Maina, 2023; Mwangi & Otieno, 2024).

At the local level, Busia County presents a context characterized by increasing housing demand alongside funding constraints, delayed payments, and cost volatility. Empirical studies indicate that

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credit risk control, inflation adjustments, interest rate monitoring, and liquidity planning positively influence project performance (Amoo, Rambo, & Mbugua, 2023; Amoo, Rambo, & Mbugua, 2025; Mutua & Makori, 2024; Otieno & Maina, 2023; Mwangi & Otieno, 2024).

This study addresses these gaps by examining how credit, inflation, interest rate, and liquidity risk management practices collectively influence residential construction project performance in Busia County, Kenya, and how project environmental factors influence the strength of the relationship between financial risk management practices and project performance. The study provides both theoretical and practical insights for improving project performance in Kenya and other developing economies (Zaneldin & Ahmed, 2024; Su & Khallaf, 2022; Ullah et al., 2026; Mwangi & Otieno, 2024).

Research Gap And Contributions

Despite growing scholarship on financial risk management and construction project performance, three key gaps remain. First, an empirical gap exists because prior studies have largely examined credit, inflation, interest rate, and liquidity risks independently, providing limited evidence on their combined influence on project performance. Yet, in practice, these risks interact simultaneously.

Second, a contextual gap persists, as most studies are conducted at national or international levels, with limited county-level evidence from Kenya, particularly Busia County, where unique financial and regulatory conditions influence project implementation.

Third, a theoretical gap exists in the limited application of Contingency Theory to explain how project environmental factors moderate the relationship between integrated financial risk management practices and project performance.

This study addresses these gaps by examining the individual, combined, and moderated effects of financial risk management practices, thereby extending Contingency Theory and providing context-specific evidence.

Research Problem and Objective

Research Problem

Despite the rapid expansion of Kenya's real estate sector, project performance continues to be constrained by cost overruns, delays, and financial instability. These challenges are largely associated with weak or fragmented financial risk management practices. Globally and regionally, these challenges have been strongly linked to inadequate financial risk management practices, particularly in relation to credit risk, inflation volatility, interest rate fluctuations, and liquidity constraints (Project Management Institute [PMI], 2021; Flyvbjerg, 2021; Zaneldin & Ahmed, 2024; Agyekum & Mensah, 2020; Moyo & Dube, 2021).

In the Kenyan context, empirical evidence indicates that many construction projects operate under weak or fragmented financial risk management systems, exposing them to financial instability and undermining overall project performance (Mutunga & Ondara, 2024; Mwangi & Otieno, 2024; Otieno & Maina, 2023). Although prior studies have examined individual financial risk factors, they have largely done so in isolation, limiting a holistic understanding of how multiple financial risk management practices jointly influence project performance.

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Furthermore, limited empirical evidence exists on how project environmental factors moderate this relationship, particularly at the county level. Consequently, projects in Busia County continue to experience inefficiencies, suggesting misalignment between risk management practices and environmental conditions. This gap underscores the need for a comprehensive and integrated examination of the combined effects of financial risk management practices and project environmental factors on project performance.

Research Objective

To assess how financial risk management practices—credit risk, inflation risk, interest rate risk, and liquidity risk—affect the performance of real estate construction housing projects in Busia County, Kenya.

Literature Review

Theoretical Foundation: Contingency Theory

Contingency Theory provides the theoretical foundation for this study. The theory posits that organizational effectiveness is achieved when managerial strategies are aligned with dynamic environmental conditions (Donaldson, 2020). In construction projects, financial risks—including credit, inflation, interest rate, and liquidity risks—vary depending on economic cycles, regulatory changes, and project-specific conditions.

Fadina, Liu, and Wang (2021) argue that effective financial risk management depends on aligning organizational systems with environmental uncertainty, while Schoemaker et al. (2022) emphasize that no single risk management model is universally applicable. Accordingly, project performance is influenced by how well financial strategies are adapted to contextual pressures. Therefore, Contingency Theory is appropriate for explaining variations in the effectiveness of financial risk management practices across real estate construction projects.

Financial Risk Management Practices

Financial risk management practices are critical in construction due to the sector's exposure to financial uncertainty, high capital requirements, and volatile markets. Financial risk management involves identifying, assessing, mitigating, and monitoring financial risks that may affect cost, time, and quality objectives (Shibani et al., 2022). It is a dynamic process requiring continuous adjustment throughout the project lifecycle (Ullah et al., 2026).

Globally, construction projects face risks such as inflation, cost fluctuations, liquidity constraints, and exchange rate volatility, all of which significantly affect project outcomes (Shibani et al., 2022). Poor risk management often results in cost overruns, delays, and reduced quality (Song et al., 2025). Conversely, proactive approaches such as financial forecasting, budgeting, and continuous monitoring improve resource optimization and project stability (Ajayi et al., 2024).

Integrated financial risk management approaches that address multiple risk dimensions simultaneously are more effective than isolated strategies because they capture interdependencies, enhance responsiveness, and improve resource allocation (Ullah et al., 2026). However, despite existing studies, there remains limited understanding of how combined financial risks interact within integrated frameworks, particularly in localized contexts.

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Credit Risk Management

Credit risk refers to the potential financial loss arising when clients or counterparties fail to meet contractual obligations. Management strategies include creditworthiness assessment, receivables monitoring, enforcement of payment terms, and debt recovery mechanisms (Wu, 2025). In construction projects, delayed payments disrupt cash flows, delay procurement, and increase costs.

Recent advancements such as artificial intelligence and machine learning have improved credit scoring and default prediction, enhancing financial planning and project outcomes (Didkovskyi et al., 2026). Effective credit risk management—including client evaluation and structured debt recovery—stabilizes cash flow and supports timely project execution (Aung et al., 2023; Amoo et al., 2023). Nevertheless, limited research has examined how credit risk interacts with liquidity, inflation, and interest rate risks within integrated frameworks, particularly in county-level contexts (Ullah et al., 2026).

Inflation Risk Management

Inflation risk arises from rising costs of materials, labor, and services, which affect project budgets and profitability. Mitigation strategies include cost forecasting, price adjustment clauses, flexible budgeting, and escalation mechanisms (Murunga et al., 2023). Inflation volatility complicates cost estimation and often leads to budget overruns and project delays (Akal, 2023; Musarat et al., 2024).

Proactive strategies such as early procurement and contract escalation clauses help reduce exposure to inflation risk (Anireddy, 2023). Globally, inflation has increased borrowing costs and constrained construction investment (Aon, 2023; Qabaja & Tenekeci, 2024). In Kenya, including Busia County, structured inflation management practices such as cost escalation planning have been shown to enhance project efficiency (Murunga et al., 2023). However, most studies treat inflation risk independently, overlooking its interaction with other financial risks.

Interest Rate Risk Management

Interest rate risk arises from fluctuations in borrowing costs, which affect project cash flows and financial viability. Management strategies include monitoring market trends, selecting appropriate financing structures (fixed or variable rates), refinancing, and hedging (Shibani et al., 2022). Rising interest rates increase financing costs and reduce project profitability, particularly in capital-intensive construction projects (McKinsey & Company, 2024; Kolo, 2023).

Effective strategies such as fixed-rate borrowing, funding diversification, and continuous economic monitoring improve financial resilience (Aung et al., 2023; Wibowo et al., 2024). Interest rate risk is closely linked to inflation and liquidity risks, necessitating integrated management approaches (Zaneldin & Ahmed, 2024). Studies in Kenya, including Busia County, indicate that interest rate management improves financial stability and project performance (Amoo et al., 2023; Su & Khallaf, 2022).

Liquidity Risk Management

Liquidity risk occurs when cash inflows are insufficient to meet financial obligations. Effective management includes cash flow forecasting, working capital management, and maintaining contingency reserves (Shibani et al., 2022). Poor liquidity management results in procurement delays, stalled activities, and

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increased borrowing costs (Doherty & Kelliher, 2023; Ullah et al., 2026).

Organizations that adopt strong cash flow planning can anticipate shortages and minimize disruptions (Moyo & Dube, 2021). In Kenya, particularly in Busia County, projects with structured liquidity management experience fewer delays and improved cost efficiency (Amoo et al., 2025; Mutunga & Ondara, 2024). Integrating liquidity risk management with other financial risks enhances overall project resilience (Zaneldin & Ahmed, 2024).

Integrated Financial Risk Management

Integrated financial risk management combines credit, inflation, interest rate, and liquidity risk strategies into a unified framework. Such approaches improve organizational resilience and outperform isolated risk strategies by enhancing responsiveness and resource allocation (Alqahtani & Hilson, 2020; Martins & Ferreira, 2021).

Empirical evidence from Africa and Kenya indicates that integrated financial risk management significantly improves real estate project performance and promotes sustainability (Wambua & Kimani, 2022; Kwame & Botchway, 2019).

Project Environmental Factors

Project environmental factors include regulatory frameworks, market dynamics, socio-economic conditions, resource availability, and technological infrastructure, all of which influence project implementation and outcomes (Ochieng & Namusonge, 2023). Stable environments enhance the effectiveness of financial risk management, whereas volatile environments weaken managerial interventions (Lopez & Ferreira, 2023; Bekker, 2019).

Supportive regulatory systems, favorable market conditions, and adequate technological infrastructure improve project performance (Cheruiyot & Kanda, 2023; Kumar & Lee, 2022; Nguyen et al., 2024). In Africa, inconsistent regulatory and market conditions reduce the effectiveness of risk management strategies (Agyekum & Mensah, 2020). In Kenya, studies show that stable environmental conditions strengthen the impact of financial risk management in Busia County (Mutua & Makori, 2024).

Conceptual Framework

The conceptual framework for this study illustrates the relationship between financial risk management practices (independent variables) and the performance of real estate construction housing projects (dependent variable). The framework is anchored on Contingency Theory, which posits that the effectiveness of management practices depends on the contextual environment in which they are applied.

The model proposes that effective financial risk management practices enhance the performance of real estate construction housing projects by reducing uncertainties associated with credit risk, inflation risk, interest rate fluctuations, and liquidity constraints. Through improved financial planning, monitoring, and control, these practices are expected to promote cost efficiency, timely project completion, and overall project sustainability.

However, the strength and direction of this relationship are influenced by project environmental factors such as regulatory frameworks, economic stability, market conditions, and technological development. These

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contextual factors may either strengthen or weaken the effect of financial risk management practices on project performance depending on their stability and supportiveness. In this regard, the conceptual framework suggests that project performance is not solely determined by financial risk management practices but is also contingent upon the prevailing environmental conditions within which housing projects are implemented. The relationship among the variables is illustrated in the diagram below.

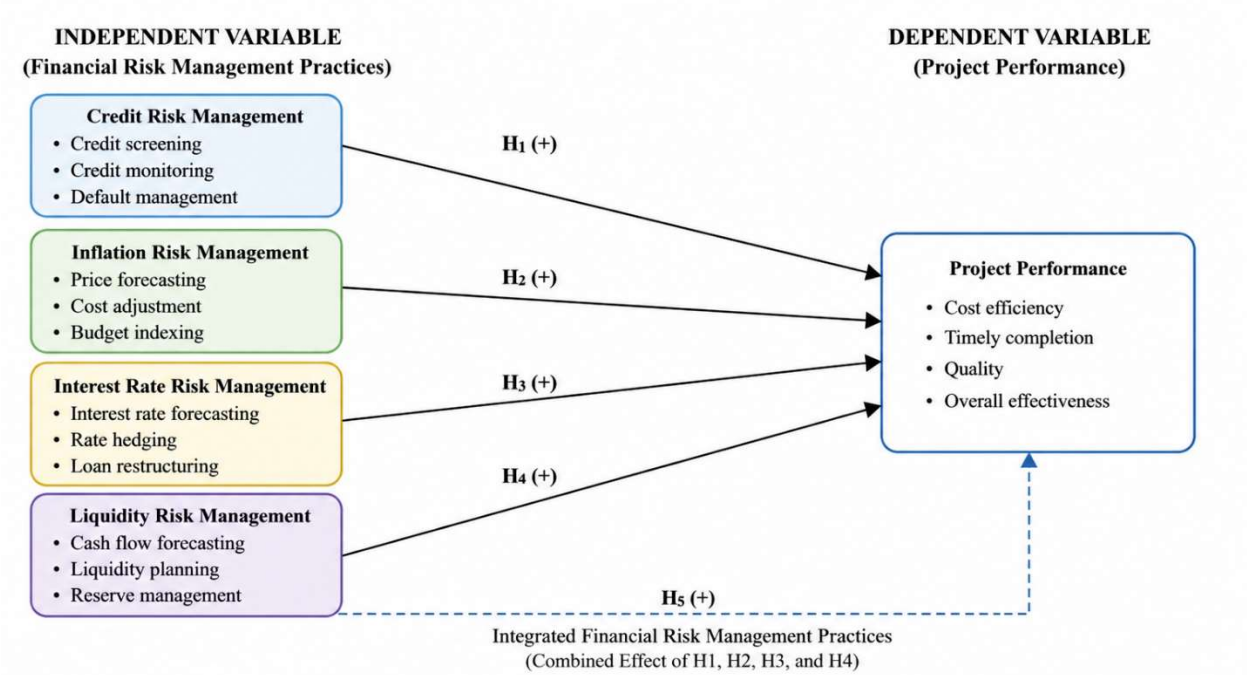


Figure 1: Conceptual Framework (Without Moderating Aspect)
Source: Author (2025)

Research Methodology

Research Paradigm and Design

This study was anchored on the pragmatic research paradigm and adopted a mixed-methods research design. The pragmatic paradigm was considered appropriate because it allows the integration of both quantitative and qualitative approaches to provide a comprehensive understanding of the research problem. The mixed-methods design enabled the triangulation of findings, thereby enhancing validity and depth of interpretation.

Stu*dy Area and Population*

The study was conducted in Busia County, Kenya. The target population comprised real estate housing stakeholders, including tenants and real estate entrepreneurs. The unit of analysis was the real estate housing project, while the units of

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observation were tenants, entrepreneurs, and key informants. The total population was 1,832 individuals, consisting of 1,664 tenants, 166 real estate entrepreneurs, and two key informants (one officer from the Ministry of Housing and one officer from the Kenya National Bureau of Statistics).

Sample Size and Sampling Procedure

The sample size was determined using Yamane's (1967) formula for finite populations:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

- n = sample size
- N = population size
- e = level of precision (0.05)

Using the formula, a sample size of 328 respondents was obtained.

To ensure proportional representation, the sample was distributed as follows:

- Tenants: 298 respondents
- Real estate entrepreneurs: 30 respondents

The sampling procedure employed was stratified random sampling, which ensured that all subgroups within the population were adequately represented. Key informants were selected purposively due to their specialized knowledge of housing and construction dynamics.

Data Collection Methods and Instruments

Data were collected using a combination of quantitative and qualitative instruments, including:

- Structured questionnaires
- Interview guides
- Focus group discussion guides
- Observation checklists

Primary data were obtained through self-administered questionnaires and interviews, while qualitative insights were enhanced through focus group discussions and direct observations. This combination allowed for triangulation of data sources and improved reliability of findings.

Data Analysis Procedures

Qualitative Data Analysis

Qualitative data were analyzed using NVivo 12 software. The analysis process involved:

1. Transcription of interview and discussion data
2. Open coding to identify initial concepts
3. Grouping of codes into categories
4. Development of themes and sub-themes through constant comparison

To ensure credibility and trustworthiness, member checking was conducted with selected participants. The final findings were presented thematically and narratively.

Quantitative Data Analysis

Quantitative data were analyzed using descriptive and inferential statistics. Descriptive statistics included measures of central tendency (mean) and measures of dispersion (standard deviation), which were used to summarize and describe the data.

Inferential analysis involved Pearson correlation and multiple linear regression to examine the

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relationships between financial risk management practices and project performance.

Regression Models

To examine the influence of financial risk management practices on project performance, two regression models were specified:

Model 1: Individual Effects Model

$$Y = \beta_0 + \beta_1 CR + \beta_2 IR + \beta_3 INR + \beta_4 LR + \epsilon$$

Model 2: Combined Financial Risk Management Model

$$Y = \beta_0 + \beta_1 CFRM + \epsilon$$

Where:

- Y= Project Performance
- CR= Credit Risk Management
- IR= Inflation Risk Management
- INR= Interest Rate Risk Management
- LR= Liquidity Risk Management
- $CFRM$= Combined Financial Risk Management Index
- β_0= Constant
- ϵ= Error term

Data Analysis and Results

This section presents the results of the study on the relationship between financial risk management practices and the performance of real estate construction housing projects in Busia County, Kenya. The analysis is organized into descriptive statistics, correlation analysis, regression results, and diagnostic tests.

Descriptive Statistics

Descriptive statistics were used to summarize the level of implementation of financial risk management practices and project performance.

Table 1: *Descriptive Statistics for Credit Risk Management*

Item	Mean	SD
Credit assessment	4.12	0.50

Note. n = 328.

Table 2: *Descriptive Statistics for Study Variables*

Variable	Mean	SD	Interpretation
Credit Risk Management	4.12	0.50	High
Inflation Risk Management	4.03	0.53	High
Interest Rate Risk Management	4.08	0.51	High
Liquidity Risk Management	4.08	0.52	High
Combined Financial Risk Management	4.15	0.46	High

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The results indicate that all financial risk management practices were highly implemented, with combined financial risk management recording the highest mean score (M = 4.15, SD = 0.46). This suggests that respondents adopted integrated financial risk management approaches across projects.

Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships among study variables.

Table 3: *Correlation Matrix for Study Variables*

Variable	1	2	3	4	5
1. Credit Risk Management	1				
2. Inflation Risk Management	.49**	1			
3. Interest Rate Risk Management	.53**	.51**	1		
4. Liquidity Risk Management	.63**	.55**	.57**	1	
5. Project Performance	.58**	.49**	.53**	.63**	1

Note. $p < .01$.

The findings show that all financial risk management practices are positively and significantly correlated with project performance. Liquidity risk management exhibits the strongest relationship ($r = .63$, $p < .01$), followed by credit risk management ($r = .58$, $p < .01$). These results suggest that improvements in financial risk management practices are associated with enhanced project performance.

Regression Analysis

Regression analysis was conducted to examine the influence of financial risk management practices on project performance. Both individual and combined effects were assessed.

Multiple Regression Results (Individual Effects Model)

Table 4: *Multiple Regression Results for Financial Risk Management Practices and Project Performance*

Predictor	β	p-value
Credit Risk Management	0.56	< .001
Inflation Risk Management	0.47	< .01
Interest Rate Risk Management	0.51	< .01
Liquidity Risk Management	0.61	< .01

Model Summary:
$R^2 = 0.42$, $p < .001$

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The results indicate that all four dimensions of financial risk management significantly and positively influence project performance. Liquidity risk management has the strongest effect (β = 0.61), followed by credit risk management (β = 0.56), interest rate risk management (β = 0.51), and inflation risk management (β = 0.47). The model explains 42% of the variation in project performance, indicating strong explanatory power.

Combined Financial Risk Management Model

Table 5: *Regression Results for Combined Financial Risk Management*

Predictor	B	p-value	R^2
Combined Financial Risk Management	0.64	< .01	0.42

The combined financial risk management index has a strong and statistically significant effect on project performance (β = 0.64, $p < .01$). The model explains 42% of the variation in project performance, confirming that integrated financial risk management practices yield greater performance outcomes than isolated approaches.

Influence of Project Environmental Factors

The relationship between project environmental factors and project performance was examined using correlation analysis.

Table 6: *Correlation between Project Environmental Factors and Project Performance*

Variable	Project Performance
Project Environmental Factors	.46**

Note. $p < .01$.

The results reveal a moderate positive and statistically significant relationship ($r = .46$, $p < .01$), indicating that favorable environmental conditions are associated with improved project performance.

Diagnostic Tests

Diagnostic tests were conducted to verify that the assumptions of multiple regression analysis were satisfied.

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Table 7: *Summary of Diagnostic Tests*

Test	Statistic	Threshold	Result
Normality (Shapiro–Wilk)	$p > .05$	> .05	Satisfied
Multicollinearity (VIF)	1.32–2.45	< 10	No issue
Durbin–Watson	1.89	1.5–2.5	No autocorrelation
Homoscedasticity	Residual plots	No pattern	Satisfied
Linearity	Scatterplots	Linear trend	Satisfied

The results confirm that all regression assumptions were met, indicating that the model estimates are reliable and valid for interpretation.

Summary of Findings

The findings demonstrate that financial risk management practices significantly influence the performance of real estate construction housing projects. All individual risk management dimensions—credit, inflation, interest rate, and liquidity—show significant positive effects, with liquidity risk management emerging as the strongest predictor.

Furthermore, the combined financial risk management model exhibits the highest explanatory power, confirming the importance of adopting integrated risk management strategies. Project environmental factors also play a significant role, suggesting that the effectiveness of financial risk management practices is enhanced under supportive external conditions.

Discussion Of Findings

This study demonstrates that financial risk management practices play a critical role in enhancing the performance of residential construction projects in Busia County, Kenya. The findings confirm that different dimensions of financial risk management contribute uniquely to project outcomes, with varying levels of influence.

Credit Risk Management and Project Performance

Credit risk management significantly influenced project performance, as evidenced by the positive relationship ($r = 0.58$, $p < 0.01$). Effective tenant assessment and payment monitoring were found to improve cash flow stability and reduce default risks, thereby enhancing project continuity and financial sustainability.

These findings are consistent with existing literature, which emphasizes that rigorous credit evaluation strengthens liquidity positions and ensures uninterrupted project execution (Gitman & Zutter, 2015; Agyapong, 2020). The results therefore confirm that sound credit risk management is essential for maintaining financial discipline in construction projects.

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Inflation Risk Management and Project Performance

Inflation risk management showed a moderate but significant influence on project performance ($r = 0.49$, $p < 0.01$). The relatively high level of implementation ($M = 4.03$, $SD = 0.53$) suggests that most projects actively adjusted budgets in response to price fluctuations.

This aligns with prior studies indicating that inflation-responsive budgeting enhances cost control and supports timely project completion (Mishkin, 2018; Karanja & Ouma, 2021). The findings imply that failure to account for inflationary pressures can undermine budget stability and project efficiency.

Interest Rate Risk Management and Project Performance

Interest rate risk management was also found to have a significant positive relationship with project performance ($r = 0.53$, $p < 0.01$). Practices such as monitoring interest rate movements and adopting fixed-rate financing arrangements contributed to cost stability and reduced exposure to financial uncertainty.

These findings are consistent with financial management theory, which suggests that effective interest rate risk control reduces financing volatility and enhances project predictability (Brealey et al., 2020; Mwangi, 2022).

Liquidity Risk Management and Project Performance

Liquidity risk management emerged as the most influential individual factor affecting project performance ($r = 0.63$, $p < 0.01$; $\beta = 0.61$, $p < 0.01$). Strong emphasis on cash flow planning, monitoring, and contingency reserves ensured operational continuity and minimized project disruptions.

These results align with financial management literature, which identifies liquidity control as a key determinant of organizational and project stability (Brigham & Ehrhardt, 2016). The findings highlight that inadequate liquidity management exposes projects to delays, inefficiencies, and financial strain.

Integrated Financial Risk Management

The study further established that integrated financial risk management practices have a stronger collective effect on project performance ($\beta = 0.64$, $p < 0.01$), explaining 42% of the variation in outcomes. This indicates that combining credit, inflation, interest rate, and liquidity risk strategies produces synergistic benefits.

These findings support contingency-based perspectives, which emphasize the importance of aligning multiple risk management strategies to enhance overall effectiveness (Froot et al., 1993; Saunders et al., 2019).

Influence of Project Environmental Factors

Project environmental factors were also found to significantly influence the effectiveness of financial risk management practices ($r = 0.46$, $p < 0.01$). Favorable regulatory frameworks, stable market conditions, and adequate resource availability strengthened the impact of risk management on project performance.

These findings are consistent with project management literature, which highlights those external environmental conditions shape project outcomes by enabling or constraining internal

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management practices (PMI, 2021; Ochieng & Were, 2020).

Overall Interpretation

Overall, the findings confirm that financial risk management is multidimensional, with each component contributing uniquely to project performance. Liquidity risk management emerged as the strongest individual predictor, while integrated financial risk management had the highest explanatory power.

Importantly, the study demonstrates that the effectiveness of financial risk management practices is enhanced in supportive project environments. This implies that optimal project performance is achieved through both strong internal risk management systems and favorable external conditions.

Summary of Findings

All dimensions of financial risk management—credit, inflation, interest rate, and liquidity—demonstrated statistically significant positive relationships with project performance. Liquidity risk management emerged as the strongest individual predictor, while integrated financial risk management exhibited the highest explanatory power.

Conclusion

The study concludes that financial risk management practices significantly influence the performance of residential construction housing projects in Busia County, Kenya. The findings demonstrate that all four dimensions of financial risk management—liquidity, credit, interest rate, and inflation risk—contribute positively to project performance, although to varying degrees.

Among these practices, liquidity risk management emerged as the most critical determinant of project success. Projects that emphasized liquidity planning, cash flow monitoring, and maintenance of contingency reserves recorded higher efficiency, fewer delays, and reduced cost overruns. Credit risk management also played a significant role by improving cash flow stability through effective tenant assessment and payment monitoring, while interest rate and inflation risk management enhanced financial predictability and budget control.

The study further concludes that integrated financial risk management practices produce superior project outcomes compared to isolated risk management approaches. Projects that adopted a coordinated combination of risk strategies achieved better performance outcomes, confirming the importance of a holistic risk management framework in construction project environments.

In line with Contingency Theory, the study establishes that the effectiveness of financial risk management practices is influenced by project environmental conditions. Regulatory frameworks, market conditions, and resource availability were found to moderate this relationship. Favorable environments strengthened the positive impact of financial risk management on project performance, while constrained environments reduced its effectiveness.

The findings therefore reinforce the central proposition of Contingency Theory that there is no single best way to manage projects. Instead, project success depends on the alignment between management practices and the contextual environment in which they are applied.

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Accordingly, the performance of real estate construction housing projects is shaped not only by the adoption of financial risk management practices but also by the degree to which these practices are appropriately aligned with prevailing environmental conditions.

The study concludes that financial risk management practices significantly influence the performance of real estate housing projects in Busia County. Among the practices examined, liquidity risk management emerged as the most critical determinant, underscoring the importance of effective cash flow planning. The findings further demonstrate that the combined implementation of financial risk strategies provides a stronger predictive effect on project performance than individual practices. These results highlight the need for integrated risk management approaches in the real estate sector.

Implications

This study contributes to theory by extending Contingency Theory beyond its conventional application, demonstrating that the effectiveness of financial risk management practices is dependent on prevailing project environmental conditions. The findings confirm that risk management outcomes are not uniform but vary according to contextual factors such as regulatory frameworks, market stability, and resource availability.

From a managerial perspective, the study underscores the importance of adopting integrated financial risk management systems. The significant influence of credit, inflation, interest rate, and liquidity risks indicates that project success depends on proactive planning, continuous monitoring, and adaptive decision-making. Project managers are therefore encouraged to strengthen risk assessment frameworks and adopt flexible mitigation strategies that respond to changing financial conditions.

In terms of policy implications, the study highlights the need for a stable and supportive macroeconomic and regulatory environment. Policymakers should enhance financial oversight mechanisms, promote inflation and interest rate stability, and improve access to affordable financing. Such measures would create an enabling environment that enhances the performance of real estate construction projects.

For investors, the findings indicate that effective financial risk management improves project viability, reduces uncertainty, and enhances investor confidence. This provides a stronger basis for informed investment decisions in the real estate construction sector.

Recommendations

Based on the findings that financial risk management practices—credit, inflation, interest rate, and liquidity—significantly enhance project performance, and that project environmental factors moderate this relationship, the study makes the following recommendations:

First, real estate developers and project managers should adopt integrated financial risk management frameworks that address multiple risks simultaneously. Such an approach enhances coordination, improves financial decision-making, and strengthens overall project efficiency.

Second, organizations should prioritize liquidity risk management by maintaining adequate contingency reserves, strengthening cash flow

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monitoring systems, and improving working capital management. This will ensure operational continuity and reduce project delays.

Third, credit risk management practices should be strengthened through rigorous creditworthiness assessments, structured payment systems, and effective monitoring of receivables. This will enhance cash flow stability and reduce exposure to default risks.

Fourth, stakeholders should adopt proactive strategies for managing inflation and interest rate risks. These may include cost escalation provisions in contracts, financial forecasting, and the use of appropriate financing structures to mitigate exposure to economic fluctuations.

Finally, financial risk management strategies should be aligned with prevailing project environmental conditions. Continuous assessment of regulatory frameworks, market dynamics, and resource availability will enable adaptive decision-making, thereby enhancing the effectiveness of risk management practices and improving overall project performance.

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Conflicts of Interest

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