

The Moderating Effect of Project Environmental Factors in Financial Risk Management Practices and Performance of Real Estate Construction Projects in Busia County, Kenya

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Abstract


The study aimed to investigate how the moderating effect of project environmental factors in financial risk management practices influences the performance of Real Estate Construction Housing Projects in Busia County. Guided by the objective; to assess the extent to which project environmental factors influence performance of Real Estate Construction Housing schemes in Busia County, Kenya. A descriptive survey research design with a sample size of 298 people drawn from a population of 1,832 was used. Data was collected using a structured questionnaire, interview schedule, focus group discussion, and an observation checklist. Quantitative data was analyzed using descriptive and inferential statistics. The Statistical Package for the Social Sciences (SPSS) version 25 was used for data analysis. Qualitative data was analyzed through thematic interpretation of respondents' accounts. Simple and multiple linear regression analyses, along with Pearson Correlation Coefficient models, were employed to determine the relationship between independent and dependent variables. The hypothesis was tested at an $\alpha = 0.05$ level of significance, and the outcome was: H_0 ; There is no significant relationship between

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moderating project environmental factors in financial risk management practices and the performance of Real Estate Construction Housing Projects in Busia County was rejected, since $P = 0.000 < 0.05$. The study concluded that there is a significant moderating influence of project environmental factors in financial risk management practices on performance of real estate construction housing projects.

Keywords: Project Environmental Factors, Real Estate Construction and Project Performance.

I. Introduction

The construction industry has experienced rapid growth in the economy over the last decade as a result of foreign investors entering Kenya. Additionally, the impact of project environmental factors on performance of the construction industry has been extensively studied. However, the studies confirm minimal outcomes in the construction of real estate. It is evident that a gap between project environmental factors and performance of construction of real estate housing projects still exists. For instance, according to Roque & Carvalho (2021), posts that project managers' efforts to prevent industry losses that could impair organizational productivity. The study highlights primary obstacles hindering the success of these projects as modifications to the project environment, which multiply as the project size expands, given that outcome uncertainties rise with larger projects. Moreover, the construction of real estate housing projects is exposed to environmental uncertainty due to factors that include; planning, design and construction complexity, the incorporation of various interest groups (owners, consultants, contractors, suppliers, among others), unavailability of resources (manpower, materials, equipment, and funds), economic and political factors, as well as statutory regulations.

Ofori (2020) established that environmental factors and financial issues are crucial to a construction project. The study adopted an exploratory approach and utilized a survey method to collect data on project performance practices and the project environment of Ghanaian organizations. The sample, which included 200 managers from various economic sectors, was selected through purposeful sampling. According to the study's findings, social and cultural aspects, geographic location, political and legal considerations, and economic and financial management are some of the environmental elements that influence a project's success. Documentation and dissemination of project environmental factors and financial management enhance the quality of project performance (Ofori, 2020). The results of Nongiba and Frank's (2020) study, *Impact of Total Quality Management Practices (TQMPs) and Project Environmental Factors on Construction Project Performance in Developing Countries*, are closely tied to these findings.

Furthermore, to enhance project performance, financial management should establish policies that encourage client/customer satisfaction, desire, and action in the project environment (Jha & Kumar, 2021; Gherbal, Shibani, Saidani, & Sagoo, 2020). A clear mission, vision, and strategic plan related to business objectives should be established by financial risk management. Leadership must actively guide, direct, and take responsibility for assessing and enhancing quality systems at predetermined intervals solely through financial risk management (Imbeah, 2022).

About 80% to 90% of Micro and Small Enterprises (MSEs) fail within the first five to ten years due to poor project management practices, according to a 2021 study by Waweru and Ngugi in Kenya on the influence of financial risk management practices on MSE performance. The 2013 Kenya Economic Survey supported this claim by

linking the underwhelming performance of Kenyan MSEs to social injustices and criminal activity committed by top management, who are frequently found to be involved in corrupt practices, resulting in further impoverishment of these organizations.

This argument was consistent with the findings of Varis and Littunen (2022), who demonstrated that innovative project environment management practices are necessary to improve MSE performance in most economies. These practices may help enhance financial risk management by reducing fraudulent activities. Nevertheless, the extent to which project environmental factors enhance the performance of real estate construction housing projects remains unclear, necessitating further investigation into the relationship between financial risk management practices, project environmental factors, and real estate construction housing project performance.

Employee commitment to socio-cultural issues are encouraged, but management involvement in real estate construction housing project activities alone is insufficient to ensure project success, claims Khan (2021). Employees who are personally invested in completing a project are more proactive in meeting product and process requirements, identifying and removing bottlenecks, refining product and process designs, and establishing challenging but realistic performance goals. This commitment is strengthened when employees have access to resources for efficient training and development.

The goal of training programs is to teach staff how to carry out specific tasks or roles. In contrast, education is broader in scope and aims to provide workers with general knowledge that they can apply in a variety of contexts (Rao, Solis, & Raghu-Nathan, 2020). Since everyone is now accountable for the performance of real estate construction housing projects, training needs to be emphasized at all organizational levels due to the collaborative nature of the work (Arditi & Gunaydin, 2021).

To achieve optimal project performance, construction housing organizations should implement specialized training programs for field workers, engineers, technicians, management, office staff, and support personnel, aligned with the organization's goals and objectives (Arditi & Gunaydin, 2021). Training may include seminars on project implementation, in-service training, or presentations by external quality experts or on project management philosophies.

For learning activities to be effective, a company should continuously encourage its employees to engage in education and training. When education and training on effective project management principles become widely adopted throughout the construction industry, workers changing jobs would require less training, having already received basic quality awareness training (Imbeah, 2022). Employees must be empowered to make on-the-job decisions, collaborate with others to solve problems, and introduce working methods that reduce steps or enhance project performance, in addition to receiving training and education (Enshassi, Mohamed, & Ekarriri, 2020).

The extent to which a business consistently meets the needs of its clients is referred to as customer focus (Gherbal, Shibani, Saidani, & Sagoo, 2020). The customer should be actively involved in product design and development, offering valuable feedback at every stage. The key to quality management is maintaining a close relationship with the customer to fully understand their needs (Gherbal et al., 2020). Thus, the customer enables a business to exist.

Customer focus is therefore crucial to Total Quality Management (TQM) for any group, team, department, partnership, or organization, whether for-profit or non-profit. It implies that quality in the construction sector should be defined by the client's needs. Employers must understand the distinction between internal and external customers. They should prioritize fulfilling and exceeding client expectations. Customer feedback must be a guiding factor in the process. Juran, as cited by Arditi and Gunaydin (2021), introduced the “triple role” concept in processes, involving the supplier, processor, and customer. This concept applies to the construction sector. According to Arditi and Gunaydin (2021), in the construction industry, the designer is the client’s customer since the designer relies on the client’s specifications to develop a viable design.

Since poor communication and inadequate on-site supervision are primary causes of poor project performance, it is crucial to enhance both communication effectiveness and the development of a competent project team at all levels (Rizwan, Farooqui, & Sarosh Lodi, 2021). Furthermore, low-quality performance at all project levels often results from a lack of trust with suppliers, inadequate training programs, and communication breakdowns among project participants (Arditi & Gunaydin, 2021).

By automating the site communication system and implementing digital protocols such as intranet, extranet, and virtual private networks, organizations can reduce or eliminate paper-based processes and enhance project performance (Rizwan et al., 2021). These systems help shorten construction project lead times, eliminate unnecessary work, and foster better communication among project stakeholders. To this extent, the researcher investigated the influence of project environmental factors on the performance of real estate construction housing projects.

Gap in the Literature

This study is unique among existing investigations as it focuses exclusively on the performance of real estate housing projects. It addresses a significant gap left by earlier studies, which often overlooked the specific complexities and challenges inherent in real estate housing schemes. For example, although Githenya (2020) and Mwinzi and Moronge (2021) highlighted the critical roles of careful planning and project team involvement in the implementation of housing projects, their scope did not extend to the particular dynamics of real estate housing. Similarly, the focused lens required to address the unique needs and intricacies of real estate housing schemes was absent in Saisi et al.’s (2020) insightful analysis of the relationship between access to infrastructure capital and project completion.

Nevertheless, by carefully examining how different aspects of environmental factors moderate financial management in achieving the successful performance of real estate housing projects, the current study aims to fill this important gap. It seeks to provide practical insights that can inform both industry practitioners and policymakers by exploring this specific domain in depth. The research adopts a comprehensive mixed-methods approach, incorporating both qualitative and quantitative techniques to uncover nuanced patterns that are unique to the context of real estate housing projects.

Aim and Originality of the Study

The results of this research would be highly relevant to Kenyan authorities and policymakers. By acknowledging the impact of environmental factors on financial management practices, they aim to address the housing needs of beneficiaries and police officers. Policymakers would be able to ensure that housing solutions align with the specific demands and objectives of real estate projects, based on the findings related to environmental factors in financial management practices.

The findings would contribute to practice, benefiting construction industry professionals and contractors operating in Kenya. By adhering to efficient financial management practices, contractors can enhance project efficiency, minimize waste, and remain within budget constraints. Implementing the study's recommendations regarding project completion would enable contractors to overcome challenges, deliver housing units within stipulated timelines, and ensure client satisfaction.

The study may also contribute to theory by enriching the existing body of knowledge on the performance of real estate housing projects.

Research Problem

In Busia County, construction issues—mostly caused by land disputes—result in lost time and unrecoverable increased costs. These issues prolong the completion time of the majority of real estate construction housing projects in the County, and unless they are resolved, the County will continue to lag in terms of real estate construction housing project performance. The prevalence and frequent abandonment of real estate development projects will therefore remain an issue, posing significant financial risks that, if properly managed, could improve the performance of real estate construction housing projects, resulting in a win-win scenario for both contractors and clients.

Busia County's fluctuating housing market conditions have not favored real estate construction projects. This discourages many entrepreneurs, as it often takes considerable time to find a market for the developed units. Most potential buyers prefer to purchase inexpensive land and build their own residential units rather than buy costly pre-built ones. According to the economic survey statistics from 2015 to 2018 on fully developed units in the three counties of Bungoma, Kakamega, and Busia, the performance of real estate construction housing projects in Busia County will continue to be sluggish unless market conditions are stabilized. This will affect the overall performance of these projects across the County.

The continuous upward revisions in tax legislation in Busia County have further discouraged prospective investors from engaging in the real estate construction housing business, as it is perceived as expensive to start, operate, and sustain—thereby slowing down business activity in this sector. Unless the Busia County government stabilizes its tax legislation system, the number of prospective entrepreneurs in real estate construction housing projects will remain low, adversely influencing the performance of such projects in the County.

Additionally, zoning regulations has significantly influenced the performance of real estate construction housing projects in Busia County. Demand for these housing projects is high in zones considered secure, while areas perceived as insecure continue to lag in terms of development. Unless the Busia County government improves the

security situation, most prospective entrepreneurs will continue to concentrate their projects in safe zones, leaving other areas underdeveloped, thus affecting the performance of real estate housing projects in the County.

Over the past four years, Busia County has fallen behind in Real Estate Housing Project Development. Since 2015, the County has experienced very slow development of housing units compared to its neighboring counties, Kakamega and Bungoma. In Bungoma County, 52 units were developed in 2015; 38 units in 2016; 75 units in 2017; and 81 units in 2018, totaling 246 units, of which 233 were completed and 13 were incomplete. In comparison, Kakamega County developed 50 units in 2015; 36 in 2016; 63 in 2017; and 71 in 2018, totaling 220 housing units, of which 201 were completed and 19 were incomplete (Economic, 2020). In Busia County, however, only 46 units were developed in 2015; 32 in 2016; 36 in 2017; and 52 in 2018, totaling 166 units, of which 102 were completed and 64 remained incomplete. This data shows that out of all developed units in the three counties, 27%, 35%, and 39% were realized in Busia, Kakamega, and Bungoma respectively, while the rate of incomplete developed units stood at 38.6%, 8.6%, and 5.3% in Busia, Kakamega, and Bungoma respectively (Kenya National Bureau of Statistics, [2020](#)).

The ideal situation is that there is a very high demand for housing units in Busia County, given its location at the Kenya-Uganda border, its high level of business activity, and its role as a gateway to Eastern and Central Africa. However, the reality on the ground is that Busia County is underperforming in the development of Real Estate Construction Housing Projects when compared to Kakamega and Bungoma Counties. Most of the real estate construction housing projects in the County are owned by senior employees of the County government, according to the Kenya Economic Survey (2020). As a result, Busia County continues to lag in development, despite the fact that real estate development plays a significant role in national economic growth. The sector has contributed immensely to global economic progress and is often seen as a key indicator of the economic health of any country.

These findings highlight a significant research gap: why is Busia County experiencing low performance in real estate construction housing projects? The Government of Kenya considers the development of Real Estate Construction Housing Projects as one of the key pillars of its Big Four Agenda, referred to as "Affordable Housing." This sector is intended to provide housing for citizens by the end of 2021. Prudent practices in financial risk management are believed to be a major driving force in improving the performance of real estate entrepreneurship. This study therefore seeks to establish financial risk management practices that may help improve the performance of real estate housing projects in Busia County

Purpose of the Study

The purpose of this study was to establish how moderating environmental factors in financial risk management influence the performance of Real Estate Construction Housing Projects in Busia County.

II. Literature Review and Development of Hypothesis

Using a descriptive research design, **Hata! Başvuru kaynağı bulunamadı.Hata! Başvuru kaynağı bulunamadı.Hata! Başvuru kaynağı bulunamadı.**Akong'a ([2021](#)) assessed the effect of financial risk management on the performance of housing projects financed by commercial banks in Kenya and discovered that credit risk management practices, inflation risk management practices, interest rate risk management practices, and liquidity risk management practices have a significant impact on the performance of real estate housing

projects. However, there has not been much research done on the link between financial risk management practices and the performance of real estate housing projects. This study, therefore, sought to establish that link. The current study adopted both qualitative and quantitative approaches.

Dey and Ogunlana (2020) argued that success parameters for project performance include completion time, adherence to budget, and meeting technical requirements. They assumed the main barriers to achievement are changes in the project environment, which multiply as the size of the project increases, due to heightened uncertainties. The study further found that large construction projects are exposed to uncertain environments due to factors such as planning, design and construction complexity, the involvement of various interest groups (owners, consultants, contractors, suppliers, among others), resource availability (manpower, materials, equipment, and funds), environmental factors, economic and political conditions, and statutory regulations. To gather data, the researchers conducted an empirical literature review. The current study adopted both qualitative and quantitative approaches.

Ofori (2020) sought to assess the quality of project management practices arising from project environmental factors and critical success factors for projects in Ghana. The study adopted an exploratory approach and utilized a survey method to collect data on project management practices and the project environment in Ghanaian organizations. Purposive sampling was used in selecting the sample, which comprised 200 managers from different economic sectors. Results from the study indicated that the critical environmental factors that contribute to project success include top management support, effective communication, clarity of project purpose and goals, stakeholder involvement, and customer focus. Ofori (2020) emphasized that documentation and dissemination of critical success environmental factors and best practices in project management improved the quality of project performance in Ghana. The current study adopted both qualitative and quantitative approaches.

Furthermore, Jha and Kumar (2020), as well as Alawag, Alaloul, Mohamed, Liew, Aang and Baarimah (2025) argue that management must provide policies that promote client/customer satisfaction and actively communicate quality policies and plans to employees (both internal and external) to create awareness, interest, desire, and action in the project environment to enhance performance. Management should establish a clear mission, vision, and strategic plan regarding business objectives. Additionally, it must provide the necessary resources and problem-oriented training to employees to support the project performance agenda (Juran & Gryna, 2020). Management must also actively lead and direct quality management programs and assume responsibility for evaluating and improving quality systems at predefined intervals (Imbeah, 2022).

Waweru and Ngugi (2021) examined the influence of financial management practices on the performance of Micro and Small Enterprises (MSEs). The study found that about 80% to 90% of MSEs fail within the first 5–10 years due to poor management practices within the project environment. The current study adopted both qualitative and quantitative approaches. To gather data, the researchers conducted an empirical literature review.

A comparative study by Ogilo (2021) argued that tax legislation at the national level affects property values in real estate projects. This was a desk study, and the researcher employed a descriptive study design. In contrast, the current study used a mixed-method approach and was conducted in the field. The current study adopted both qualitative and quantitative approaches.

Omopariola and Windapo (2021) investigated how financial management techniques affect project and organizational performance. A thorough review of existing literature and a quantitative research approach were used in the study. Budgeting, creditworthiness, risk management, review, and assessment were found to be effective financial management techniques among the organizations examined, and these strategies had a favorable effect on both project and organizational performance. To gather data, the researchers conducted an empirical literature review. The current study adopted both qualitative and quantitative approaches.

Shao and Muller (2020) used an analytical approach to evaluate community satisfaction. The study utilized a descriptive research design. A thorough review of existing literature and a qualitative research approach were applied. Risk management, review, and assessment were identified as effective financial management techniques, with financial strategies showing a positive impact on both project and organizational performance. To gather data, the researchers conducted an empirical literature review. The current study adopted both qualitative and quantitative approaches.

The study aimed to test the following hypothesis:

H₀: There is no significant moderating influence of project environmental factors on the relationship between financial risk management practices and the performance of Real Estate Construction Housing Projects in Busia County, Kenya.

Theoretical Framework

This study is anchored in **Contingency Theory**. The proponent of the theory was Australian psychologist Fred Edward Fiedler, who introduced it in 1964. The theory assumes that best practices depend on the contingencies of the situation. It is related to the current study in that each project implemented is unique, and its management should be conducted according to its specific characteristics and environment at a given time. This study focuses on managing risk in construction projects and asserts that, due to the one-off nature of such projects, there is no single best way to manage them.

Contingency Theory is often called the “it all depends” theory, because when one asks a contingency theorist for an answer, the typical response is that “it all depends.” The term *contingency*, as used in this theory, refers to the relationship between two phenomena. In this case, it refers to the relationship between financial risk management practices in real estate construction housing projects and project performance.

The word *contingency* shows how the external source of risk relates to the system and determines the activities and structure of an organizational system. The theory aims to improve organizational effectiveness to respond to uncertainty in project performance. Contingency is mainly established to eliminate or reduce the negative outcomes of unexpected events. Steiner (2021) recognizes the novelty of Contingency Theory as an adaptation of specific structures and activities that are most appropriate for an organization's current requirements. Therefore, this theory is used in the present thesis to describe a risk management approach for real estate construction housing projects that best suits Busia County's current situation.

Contingency Theory aims to determine the probability of relationships between specific elements in the organizational environment and to identify various organizational responses to these elements, thereby providing

direction for other organizations facing similar situational influences (Ritchie & Marshall, [2021](#)). Despite all the positive attributes associated with the theory, it has faced considerable criticism for lacking clarity in its theoretical statements (Galbraith, [2020](#)). Consequently, these theoretical statements have often failed to provide indicators about the specific form of interaction they intend to describe. Despite these objections, the theory is considered most appropriate for this study as it is risk-based (the core focus of the thesis), and thus incorporates environmental conditions as an essential source of risk in construction projects (Noor & Tichacek, [2021](#)).

In project implementation, not all risks are covered; therefore, an estimate of 10% of the total project cost is typically set aside as a contingency reserve to cater for emergencies that might arise unexpectedly (Flanagan and Norman, [2020](#)). However, given the complex nature of construction projects, the common traditional practice of allocating a fixed percentage (ranging from 5% to 15%) of the estimated budget or contract value as a contingency may not be appropriate. The complexity of the projects and inherent uncertainty in project execution and the performance of involved parties make it very difficult to forecast the exact project budget with precision. Consequently, including contingency as a funding source in project budgets is required to provide managers with the flexibility to address such deviations.

III. Methodology

The paradigm suitable for this study is Pragmatism. The study employed a mixed research design. The target population comprised entrepreneurs of real estate housing in Busia County, Kenya. The unit of analysis consisted of 328 tenants and entrepreneurs, derived using Yamane's formula (1967) from a total target population of 1,832 people. The unit of observation included 1,664 tenants and 166 real estate entrepreneurs.

The research instruments used were a questionnaire, an interview guide, and an observation checklist. Stratified random sampling was used to obtain a representative sample from each stratum. Primary data was utilized in the study. The instruments for data collection included a self-administered structured questionnaire and interview guides.

The qualitative data collected through interviews was analyzed using NVivo 12, a qualitative data analysis software. NVivo facilitated the systematic organization, coding, and exploration of the data to identify key themes and patterns. The analysis process began with open coding, during which each interview transcript was carefully reviewed to identify initial codes representing specific concepts and ideas. These initial codes were then grouped into broader themes and sub-themes through an iterative process of constant comparison. The emergent themes and sub-themes were further refined and validated through member checking with selected participants to ensure the accuracy and credibility of the findings. Moreover, the qualitative findings were analyzed and presented in prose form.

This study also utilized descriptive and inferential statistics. Quantitative data was analyzed descriptively using measures of central tendency and measures of dispersion. The measure of central tendency employed was the arithmetic mean, while the standard deviation was used as the measure of dispersion for data obtained from interval and ratio scales. The standard deviation indicated how strongly or weakly the data deviated from the arithmetic mean.

In addition, the researcher conducted Pearson's correlation analysis and simple regression analysis to determine the relationship between the variables. The regression model used was as shown below:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots\dots\dots i$$

Where: Y= Performance of real estate construction housing projects

X₁ = Financial risk management

ε =Error term

IV. Findings and Discussion

Return Rate

The researcher targeted 320 respondents for the questionnaire. Table 4.1 below presents the responses from the sampled participants using a Likert scale. The participants were asked to indicate their level of agreement or disagreement with ten statements related to the Project Environment on a five-point Likert scale, where Strongly Agree (SA) = 5, Agree (A) = 4, Neutral (N) = 3, Disagree (D) = 2, and Strongly Disagree (SD) = 1.

The results were analyzed and presented using frequency, percentage, mean, and standard deviation for each response to each item. Additionally, the item-wise mean and standard deviation were computed and are presented in Table 4.1.

Table 4.1; Project environmental Factors and performance of Real Estate Construction Housing Projects.

Table 4.1 Correlation Analysis of Project Environment Factors in Financial risk Management Practices and Performance of Real Estate Construction Housing Projects

ZProject environment factors statements		Performance of real estate construction housing Projects
1. The Social-Cultural environment influence financial performance of RECHP	Pearson correlation sig. (2-tailed) n	0.533* 0.000 320
2. The Construction environment influence financial performance of RECHP	Pearson correlation sig. (2-tailed) n	0.355* 0.000 320
3. Changes in environmental regulations within which RECHP are developed influences their performance	Pearson correlation sig. (2-tailed) n	0.638* 0.000 320
4. The legal environment influence financial performance of RECHP	Pearson correlation sig. (2-tailed) n	0.672* 0.000 320

5. Economic and financial environment of RECHP influence their performance	Pearson correlation sig. (2-tailed) n	0.327* 0.000 320
6. Safety of RECHP affects performance of the RECHP projects	Pearson correlation sig. (2-tailed) n	0.112* 0.045 320
7. Political environment of RECHP influences their performance	Pearson correlation sig. (2-tailed) n	0.472* 0.000 320
8. The physical environment within which construction projects are sited influences performance of RECHP	Pearson correlation sig. (2-tailed) n	0.500* 0.000 320
9.The economic activity of all parties involved in development of RECHP influence their performance	Pearson correlation sig. (2-tailed) n	0.408* 0.000 320
10.The quality of development of RECHP influence their performance	Pearson correlation sig. (2-tailed) n	0.698* 0.000 320
Project environment Factors (overall correlation)	Pearson correlation Sig.(2-tailed) N	0.779* 0.000 320
<hr/>		
*Correlation is significant at 0.05	level (2-tailed)	

Source: Field data work 2021

To test the extent of the relationship between Project environment factors and Performance of real estate construction housing projects; several characteristics of Project environment factors and Performance of real estate construction housing projects were analyzed based on the following hypothesis; H0: There is no significant relationship between Project environment factors and Performance of real estate construction housing projects. The corresponding mathematical model for the hypothesis was identified as follows: Performance of real estate construction housing projects = f (Project environment factors). The correlation results presented in Table 4.1 indicated that the ten out of ten statements of Project environment factors were significant since the P-values <0.05 : Statement 1; (The Social-Cultural environment influence financial performance of RECHP; $r=0.533$, P-value= $0.000<0.05$), Statement 2;(The Construction environment influence financial performance of RECHP; $r=0.355$, P-value= $0.000<0.05$), Statement 3;(Changes in environmental regulations within which RECHP are developed influence their performance ; $r=0.638$, P-value= $0.000<0.05$),Statement 4;(The legal environment influence financial performance of RECHP; $r=0.672$, P-value= $0.000<0.05$), Statement 5; (Economic and financial environment of RECHP influence their performance.; $r = 0.327$, P-value = $0.000<0.05$), Statement 6; (Safety of RECHP affects performance of the RECHP projects; $r =0.112$, P-value= $0.045<0.05$), Statement 7;(Political environment of RECHP influences their performance; $r=0.47275$, P-value= $0.001<0.05$), Statement 8;(The physical environment within which construction projects are sited influences performance of RECHP; $r = 0.500$, P-value= $0.000<0.05$), Statement 9; (The economic activity of all parties involved in development of RECHP

influence their performance; $r=0.408, P\text{-value}=0.000<0.05$) and Statement 10; (The quality of development of RECHP influence their performance; $r=0.698, P\text{-value}=0.000<0.05$).

In order to determine the overall correlation between Project environment factors and Performance of real estate construction housing projects, Pearson correlation coefficient was run on the scores of each scale. The total scores of the scales were computed as a summation of the individual scores on each item by the respondent at 95% level of confidence. The study found a positive overall correlation ($r=0.779$) which was statistically significant as $P<0.05$ ($p=0.000$) between Project environment factors and Performance of real estate construction housing projects, implying that there is a significant relationship between Project environment factors and Performance of real estate construction housing projects; leading to rejection of the null hypothesis (H_0 : There is no significant relationship Project environment factors and Performance of real estate construction housing projects) and acceptance of the alternative hypothesis, and hence the research findings conclude that there is a significant relationship between Project environment factors and Performance of real estate construction housing projects.

V. Discussion

The seventh research objective was to examine the extent to which Project Environmental Factors moderate the relationship between Financial Risk Management Practices and the Performance of Real Estate Construction Housing Projects in Busia County. The composite mean and composite deviation after the moderation effect of Project environmental factors were 3.93 and 1.02 respectively; implying that using the Likert scale, the respondents agreed that Project Environment Factors moderate the relationship between Financial Risk Management practices and Performance of real estate construction housing projects in Busia County. The overall correlation coefficient for Project environmental factors was found to be 0.847 with a $p\text{-value}$ of $0.000 < \alpha=0.05$, implying that from the views of participants in the study; the results indicated that there was a significant moderating influence of Project environmental factors on the relationship between Financial Risk Management practices and Performance of real estate construction housing projects in Busia County leading to rejection of the null hypothesis (H_0 : There is no significant moderating influence of Project environmental factors on the relationship between Financial Risk Management practices and Performance of real estate construction housing projects in Busia County) and acceptance of the alternative hypothesis. The ANOVA results from the study participant's views indicated that the regression model for moderating the influence of Project environmental factors on the Financial Risk Management practices and Performance of real estate construction housing projects in Busia County is a good fit for predicting Performance of real estate construction housing projects in Busia County; $F\text{-statistics} (5,314) = 159.50$ and $p\text{-value} = (0.000 < 0.05)$. The multiple linear regression coefficients result indicated that Project environmental factors moderated; Credit risk management (Value of test statistics: $t=3.878$; $p\text{-value} = 0.003$, Inflation risk management; $t=4.616$; $p\text{-value} = 0.004$, Interest rate risk management; $t=2.695$; $p\text{-value} = 0.000$ and Liquidity risk management; $t=3.642$ $p\text{-value} = 0.000$). The study findings have shown the significance of credit risk management as a key performance factor in the construction of real estate housing projects. It is recommended that those constructing real estate houses take this into consideration. Regarding financial resource management, the study recommends that project management adhere to cost estimation, cost budgeting, and cost-controlling practices to enhance the performance of real estate housing projects. It is therefore recommended that proper cost estimation be carried out based on the project scope in order to develop a more accurate project budget. It is also important that the management of real estate housing projects establish

appropriate strategies for cost control to foster project performance. The study further recommends that project materials, which form a very significant resource, if well planned and monitored, can help in managing project costs to a large extent—particularly Class A materials. Once the procedures for material ordering are correctly and efficiently followed in a housing construction project, the total material cost of the project can be greatly reduced.

The study also recommends that there should be a central place for managing and coordinating material handling operations between the site and the head office, and calls for a resourceful Management Information System (MIS) that will assist in material control and ensure project completion.

Research Implications

In addition to developing and documenting techniques for proper human resource planning, recruitment, and motivation, it is recommended that a comprehensive policy framework be established at the national level. This framework should outline standardized practices for human resource management in real estate housing projects, with a focus on recruiting and retaining highly qualified project managers and personnel.

For future research, it is advised to consider not only the pragmatism paradigm but also to explore other research paradigms, such as interpretivism or positivism, to gain different insights into the subject matter. This diversity in research paradigms can provide a more holistic understanding of financial risk management practices in the context of real estate housing projects.

Additionally, mixed-methods research approaches should be extended to involve not only quantitative and qualitative data but also ethnographic research techniques, such as participant observation or in-depth interviews, to provide a more nuanced understanding of the challenges and successes in resource management in these projects.

Limitations of the Study

This study covered sensitive information of public interest; therefore, some respondents were unwilling to disclose information, fearing it might be used against them. To address this, they were assured of the confidentiality of their responses.

There was inadequate data on completed projects, and the study encountered several information gaps during data collection. This limitation was mitigated by employing triangulation methods, where data was collected from multiple sources and then collated to ensure accuracy.

Data collection was also affected by the COVID-19 pandemic, which restricted the movement of people. However, this challenge was overcome by using Google Forms to administer the questionnaires and conducting phone interviews.

Suggestions for Further Research

Further research is encouraged to investigate the influence of various dimensions of resource management—such as financial, material, and human resource management—on the completion of real estate housing projects. A

comprehensive study exploring these multifaceted aspects can provide a more complete understanding of their impact on project outcomes.

To offer deeper insights into regional disparities and localized factors affecting project completion, future research should consider specific counties as units of analysis. By comparing practices and outcomes across different counties, researchers can identify region-specific challenges and best practices that may inform county-level policy and implementation strategies.

Extending beyond the construction sector, future studies could also explore the influence of resource management practices on project completion in diverse domains. This cross-sectoral approach could help in identifying commonalities and differences in resource management challenges and solutions across various types of projects, including infrastructure development, healthcare initiatives, and educational programs.

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Author(s) Contribution Statement

All authors contributed to the revision of the manuscript, read, and approved the submitted version.

Specifically, Murunga Anthony Amoo developed and revised the main manuscript, edited it, and ensured it followed the recommended guidelines. Prof. Charles Rambo was involved in restructuring and approving the manuscript for submission, and Dr. John Mbugua participated in reviewing and approving the manuscript for academic structure.

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