


FINANCIAL ACCOUNTABILITY AND PERFORMANCE OF REAL ESTATE PROJECTS IN STAREHE SUBCOUNTY, NAIROBI COUNTY

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ARTICLE INFO	ABSTRACT
<p>Article history: Received: Jan, 22th 2025 Accepted: Mar, 21th 2025</p>	<p>Objective: The objective of this study is to investigate the influence of financial accountability on the performance of real estate projects in Starehe sub-county, Nairobi County, with the aim of understanding how financial management practices impact project success in the region.</p>
<p>Keywords: Red Palm Mite; Agroindustrial Waste; Alternative Management; Passiflora Edulis.</p>	<p>Theoretical Framework: This study is grounded in Agency Theory, formalized by Jensen and Meckling in 1976, which addresses the problems arising in relationships where principals delegate work to agents. The theory provides a foundation for understanding the importance of financial accountability mechanisms in managing principal-agent relationships within real estate projects.</p>
	<p>Method: The study employed both predictive correlational and descriptive research designs under a pragmatic research paradigm. Data collection was carried out through structured questionnaires and semi-structured interviews, targeting a sample of 253 respondents including finance managers, project managers, project engineers, and contractors in the real estate sector, with a response rate of 83.8%.</p> <p>Results and Discussion: The results revealed a significant positive correlation between financial accountability and project performance ($r = 0.681, p < 0.001$). Regression analysis showed that financial accountability explains 46.4% of the variance in real estate project performance, with a significant positive effect ($\beta = 0.571, t = 13.481, p < 0.001$).</p> <p>Research Implications: The findings provide valuable insights for real estate practitioners and project managers in implementing effective financial accountability mechanisms. These implications encompass improved project control systems, monitoring procedures, and internal controls for funds allocation, which are crucial for ensuring project success.</p> <p>Originality/Value: This study contributes to the literature by providing empirical evidence of the relationship between financial accountability and real estate project performance in an urban African context. The research's value is evidenced by its comprehensive examination of financial accountability mechanisms in Nairobi's real estate sector, offering practical insights for improving project outcomes.</p> <p>Doi: https://doi.org/10.26668/businessreview/2025.v10i5.5264</p>

FINANCIAL ACCOUNTABILITY AND PERFORMANCE OF REAL ESTATE PROJECTS IN STAREHE SUBCOUNTY, NAIROBI COUNTY

RESUMO

Objetivo: O objetivo deste estudo é investigar a influência da responsabilização financeira no desempenho de projetos imobiliários no subcondado de Starehe, Condado de Nairóbi, com o objetivo de compreender como as práticas de gestão financeira impactam o sucesso dos projetos na região.

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Referencial Teórico: Este estudo baseia-se na Teoria da Agência, formalizada por Jensen e Meckling em 1976, que aborda os problemas que surgem em relacionamentos em que os principais delegam trabalho aos agentes. A teoria fornece uma base para a compreensão da importância dos mecanismos de responsabilização financeira na gestão das relações principal-agente em projetos imobiliários.

Método: O estudo utilizou delineamentos de pesquisa correlacional preditiva e descritiva sob um paradigma de pesquisa pragmática. A coleta de dados foi realizada por meio de questionários estruturados e entrevistas semiestruturadas, com uma amostra de 253 respondentes, incluindo gerentes financeiros, gerentes de projeto, engenheiros de projeto e empreiteiros do setor imobiliário, com uma taxa de resposta de 83,8%.

Resultados e Discussão: Os resultados revelaram uma correlação positiva significativa entre a responsabilização financeira e o desempenho do projeto ($r = 0,681$, $p < 0,001$). A análise de regressão mostrou que a responsabilização financeira explica 46,4% da variância no desempenho de projetos imobiliários, com um efeito positivo significativo ($\beta = 0,571$, $t = 13,481$, $p < 0,001$).

Implicações da Pesquisa: Os resultados fornecem insights valiosos para profissionais do setor imobiliário e gerentes de projetos na implementação de mecanismos eficazes de responsabilização financeira. Essas implicações abrangem sistemas aprimorados de controle de projetos, procedimentos de monitoramento e controles internos para alocação de fundos, que são cruciais para garantir o sucesso do projeto.

Originalidade/Valor: Este estudo contribui para a literatura ao fornecer evidências empíricas da relação entre responsabilização financeira e desempenho de projetos imobiliários em um contexto urbano africano. O valor da pesquisa é evidenciado por sua análise abrangente dos mecanismos de responsabilização financeira no setor imobiliário de Nairóbi, oferecendo insights práticos para aprimorar os resultados dos projetos.

Palavras-chave: Ácaro Vermelho da Palmeira, Resíduos Agroindustriais, Manejo Alternativo, Passiflora Edulis.

RESPONSABILIDAD FINANCIERA Y DESEMPEÑO DE PROYECTOS INMOBILIARIOS EN EL SUBCONDADO DE STAREHE, CONDADO DE NAIROBI

RESUMEN

Objetivo: El objetivo de este estudio es investigar la influencia de la rendición de cuentas financiera en el rendimiento de los proyectos inmobiliarios en el subcondado de Starehe, condado de Nairobi, con el fin de comprender cómo las prácticas de gestión financiera impactan el éxito de los proyectos en la región.

Marco teórico: Este estudio se basa en la Teoría de la Agencia, formalizada por Jensen y Meckling en 1976, que aborda los problemas que surgen en las relaciones donde los principales delegan trabajo a los agentes. Esta teoría proporciona las bases para comprender la importancia de los mecanismos de rendición de cuentas financiera en la gestión de las relaciones principal-agente en proyectos inmobiliarios.

Método: El estudio empleó diseños de investigación predictivos, correlacionales y descriptivos bajo un paradigma de investigación pragmático. La recopilación de datos se realizó mediante cuestionarios estructurados y entrevistas semiestruturadas, dirigidas a una muestra de 253 encuestados, incluyendo gerentes financieros, gerentes de proyecto, ingenieros de proyecto y contratistas del sector inmobiliario, con una tasa de respuesta del 83,8 %.

Resultados y Discusión: Los resultados revelaron una correlación positiva significativa entre la responsabilidad financiera y el rendimiento del proyecto ($r = 0,681$, $p < 0,001$). El análisis de regresión mostró que la responsabilidad financiera explica el 46,4 % de la varianza en el rendimiento de los proyectos inmobiliarios, con un efecto positivo significativo ($\beta = 0,571$, $t = 13,481$, $p < 0,001$).

Implicaciones de la Investigación: Los hallazgos proporcionan información valiosa para los profesionales del sector inmobiliario y los gestores de proyectos en la implementación de mecanismos eficaces de responsabilidad financiera. Estas implicaciones abarcan la mejora de los sistemas de control de proyectos, los procedimientos de seguimiento y los controles internos para la asignación de fondos, que son cruciales para garantizar el éxito del proyecto.

Originalidad/Valor: Este estudio contribuye a la literatura al proporcionar evidencia empírica de la relación entre la responsabilidad financiera y el rendimiento de los proyectos inmobiliarios en un contexto urbano africano. El valor de la investigación se evidencia en su análisis exhaustivo de los mecanismos de responsabilidad financiera en el sector inmobiliario de Nairobi, ofreciendo perspectivas prácticas para mejorar los resultados de los proyectos.

Palabras clave: Ácaro Rojo de las Palmas, Residuos Agroindustriales, Manejo Alternativo, Passiflora Edulis.

1 INTRODUCTION

The effectiveness of a project may be affected by the controls put in place to ensure that money is well spent. Financial accountability methods, as defined by Otubor and Salawu (2017), encompass numerous accounting activities, such as capturing, evaluating, measuring, and auditing financial information in order to improve the quality of decisions. But as Eton, Murezi, Mwosi, and Ogwel (2018) point out, financial accountability is all about reassuring various parties that their resources were used wisely in the course of the project's execution.

There are diverse ways on ensuring project financial accountability including financial internal control mechanisms, budgeting, financial reporting, and auditing amongst other aspects. The financial internal controls in the project performance implies the mechanisms put in place to safeguard the interests of the stakeholders and ensure value for money in the use of financial resources during project performance (Otubor & Salawu, 2017). The project managers in this context must ensure that there is proper authorization in requests for financial resources, allocation of such resources and expenditure of the resources. This is with a view of ensuring that there is no wastage, fraud and there is value for money in the undertaken activities. The value for money component in the project financial accountability relates to the project activities being financed in a manner that the project achieves the maximum benefits per unit shilling during project performance (Barrueco, 2015). Thus in respect to the project financial control mechanisms there must be adequate control of the finances from the planning, requesting, allocation, handling and utilization of the funds. This will ensure that there is transparency in the financial resources usage during project performance process.

In this study, Financial Accountability refers to the systems and mechanisms put in place to ensure responsible management and transparency of project resources. This variable includes five main components: asset protection, which safeguards project resources; expense accountability, which tracks and justifies all expenditures; profits monitoring, which oversees revenue generation and retention; internal controls, which establish checks and balances; and controls adherence mechanisms, which ensure compliance with established procedures. These elements collectively ensure proper stewardship of project resources and maintain stakeholder confidence.

One of the most important aspects of project management is how well the project itself performs. Knowledge of how a project is doing is intrinsically linked to that knowledge. A project is defined as "a planned temporary effort performed to generate an original product or

supply a service within a specified time span and assigned money," as stated by Mhlanga, Munapo, and Mavetera (2016). The project performance then is the undertaking of this temporary endeavor within its stated mandate and scope. On the other hand, Billah (2016) views project performance simply as the conversion of project inputs into project outputs. However, Billah (2016) did not categorically state on what project input and output constituted in their conceptualization. Harjanto, Azis, and Hidayat (2019) further views project performance as putting into action the project plan in order to realize the intended benefits of the project.

Diverse components have traditionally been used to measure or conceptualize the project performance. Amongst these components, include the time criteria, scope criteria, quality criteria and cost criteria (Biketi *et al.*, 2017). The time component is one of the most widely used measure for project performance success. The time criteria in measuring the effectiveness of the project performance process examines on whether the project was completed in time (Zheng *et al.*, 2014). The completion of the project in a timely manner is important to avoiding cost overruns, stakeholder satisfaction, and enabling the achievement of the intended project benefits. The project delays leads to the project cost overruns as there is need to engage more financial resources for labour, materials, change of designs, and diverse other processes (Billah, 2016). The project delays may lead to stakeholder dissatisfaction as result of the project cost overruns and the delay in utilizing the project for its intended purposes (Harjanto *et al.*, 2019).

The quality of the project is another key measure of the project performance. The quality of the project refers to the ability of the project to perform its intended mandates within acceptable standards (Billah, 2016). This implies that in the project performance process there must be quality workmanship undertaken at all stages of the project in order for the aggregate project to be of quality aspects (Harjanto *et al.*, 2019). This leads to the stakeholder satisfaction and value for money in the executed project. The ability of the project managers to undertake the project within the required project scope is another critical measure for the project performance success. The project performance process must in this context conform to all the required specifications. This acts to ensure that the project quality is maintained and there is stakeholder satisfaction levels (Mhlanga *et al.*, 2016).

In this study, Project Performance serves as the dependent variable measuring the success and effectiveness of real estate projects. It encompasses five key indicators: timely completion, which assesses whether projects meet scheduled deadlines; project completion within budget, which evaluates financial performance; project completion within scope, which

measures adherence to planned deliverables; quality of project output, which assesses the standard of completed work; and project meeting technical requirements, which ensures compliance with specifications. These measures collectively provide a comprehensive assessment of project success.

1.1 RESEARCH OBJECTIVES

The study is guided by the following objectives:

1.1.1 To establish the extent to which financial accountability influence the performance of real estate projects in Starehe subcounty, Nairobi County.

1.1.1.1 Financial Accountability and Performance of Real Estate Projects

Financial accountability is a key component for the success of the projects in diverse sectors. Rodrigue (2017) conceptualizes financial accountability as management of finances of an entity with a view of meeting financial objectives. Building on Rodrigue (2017) conceptualization of financial accountability as financial management, Eton *et al.*, (2018) further adds that this financial management is undertaken with a view of ascertaining presence of transparency on how funds were spent or managed. While these studies provide valuable conceptual frameworks, they present a conceptual gap as they may lack empirical testing in the context of real estate projects, which the current study aims to address.

Different from Rodrigue and offering a broader conceptualization of financial accountability, Abubakar, Dibal, and Amade (2017) views it as the employing the instruments of auditing, budgeting, and accounting, monitoring and reporting on the allocation, distribution, and use of financial resources. Abubakar *et al.*, (2017) conceptualization gives both the process of the financial accountability as well as the means by which it is achieved. Both Eton *et al.*, (2018) as well as Doussy and Doussy (2016) further link the importance of financial accountability to decision making in respect to the allocation of scarce financial resources. Financial accountability is a multidimensional construct that have been measured using various indicators such as financial internal control mechanism, budgeting practices, financial recording, financial reporting and auditing. However, these studies present a methodological

gap as they are conceptual in nature, lacking the empirical testing that the current study provides.

Rotich and Were (2017) conducted research in Kenya to determine what variables affect the success of road building projects in Uasin Gishu County. The impact of financial responsibility and transparency on project success was one of the factors studied. A descriptive research strategy was used for this study, and collected data from County project officers, Contractors, Consultants and Regulatory bodies officials. The study found that accountability levels in financial expenditure is enhanced through use of financial records. Rotich and Were (2017) further found that the availing of the financial records and using reports to the stakeholders enables decision making such as funds allocation levels. While this study is conducted in Kenya, it presents a contextual gap as it focuses on road building projects in Uasin Gishu County, as opposed to the current study's focus on real estate projects in Nairobi County.

2 THEORETICAL FOUNDATION

The study will be based on the agency theory. Agency theory, formalized by Jensen and Meckling in 1976, is a fundamental concept in organizational economics that addresses the problems that can arise in relationships where one party (the principal) delegates work to another (the agent). This theory has its roots in earlier works on the separation of ownership and control in corporations, notably by Berle and Means in 1932. Agency theory primarily focuses on resolving two problems that can occur in agency relationships: the agency problem, where the desires or goals of the principal and agent conflict, and the problem of risk sharing, where the principal and agent have different attitudes towards risk (Eisenhardt, 1989). The theory has been widely applied in various fields, including economics, finance, accounting, and organizational behavior, to understand and address issues related to corporate governance, executive compensation, and organizational design.

The core assumptions of agency theory are grounded in a more pessimistic view of human nature compared to stewardship theory. It assumes that individuals are rational actors who seek to maximize their own utility. In the context of organizations, this means that managers (agents) may pursue their self-interest at the expense of shareholders' (principals') interests if left unchecked. The theory also assumes that there is an information asymmetry between principals and agents, with agents typically having more information about the day-to-day operations and true performance of the organization. Furthermore, agency theory posits

that principals and agents may have different risk preferences, which can lead to conflicts in decision-making (Jensen & Meckling, 1976). These assumptions lead to the conclusion that without proper governance mechanisms, agents may engage in opportunistic behavior that is detrimental to the principals' interests.

The components of agency theory encompass several key elements that contribute to its framework for understanding and managing principal-agent relationships. First, it emphasizes the importance of contracts in aligning the interests of principals and agents. These contracts can be explicit (formal agreements) or implicit (informal understandings) and are designed to specify the rights and responsibilities of both parties (Eisenhardt, 1989). Second, the theory highlights the role of monitoring mechanisms in reducing information asymmetry and controlling agent behavior. This includes various forms of oversight, such as board of directors, auditing, and performance measurement systems. Third, agency theory introduces the concept of agency costs, which are the costs incurred by the principal to ensure that the agent acts in the principal's best interests. These costs include monitoring expenses, bonding costs (incurred by the agent to guarantee their commitment), and residual loss (the reduction in firm value due to divergence between principal and agent interests) (Jensen & Meckling, 1976).

Another crucial component of agency theory is its focus on incentive structures as a means of aligning agent behavior with principal interests. This often takes the form of performance-based compensation, such as stock options or bonuses tied to specific metrics. The theory also emphasizes the importance of information systems in reducing information asymmetry and facilitating effective monitoring. Additionally, agency theory recognizes the role of market mechanisms, such as the market for corporate control (e.g., takeovers), in disciplining managers and aligning their interests with those of shareholders (Fama & Jensen, 1983). Lastly, the theory incorporates the concept of risk sharing, suggesting that contracts should be structured to optimally allocate risk between principals and agents based on their respective risk preferences and abilities to bear risk.

Agency Theory has drawn criticism for its overly pessimistic view of human nature and its narrow focus on economic self-interest (Ghoshal & Moran, 1996). Critics argue that the theory's emphasis on control and monitoring mechanisms can create a self-fulfilling prophecy by fostering distrust and encouraging the very opportunistic behavior it seeks to prevent (Davis *et al.*, 1997). The theory has also been criticized for oversimplifying complex organizational relationships and overlooking social, cultural, and psychological factors that influence managerial behavior (Wiseman *et al.*, 2012). Furthermore, Roberts (2005) contends that the

costs of implementing extensive monitoring and control systems suggested by agency theory may outweigh their benefits, particularly in smaller real estate projects.

The application of agency theory is particularly relevant in the context of real estate project management and performance. Real estate projects often involve substantial investments, long time horizons, and complex stakeholder relationships, all of which can exacerbate agency problems. Project managers, as agents, may have incentives to pursue short-term gains at the expense of long-term project success, or to misrepresent project progress and financial performance to stakeholders. The theory's emphasis on monitoring, incentive alignment, and information systems can inform strategies for improving project governance and performance (Eisenhardt, 1989). For instance, implementing robust financial accountability measures, as highlighted in the study's objectives, can be seen as a way to address agency problems in real estate project management.

In the context of the current study on real estate project performance in Starehe sub-county, Nairobi County, agency theory provides a valuable framework for examining the relationship between financial management practices and project outcomes. It suggests that effective capital structure management, financial planning, and cost management may be influenced by the extent to which agency problems are addressed within project organizations. The theory's focus on aligning interests through incentives and monitoring aligns with the study's objectives to assess how various financial management practices influence project performance. Additionally, the concept of agency costs could provide insights into the efficiency of financial management practices and their impact on overall project success. By considering agency theory, the research may uncover important relationships between governance structures, financial management practices, and real estate project performance in the studied area.

3 RESEARCH METHODOLOGY

This study adopted a pragmatic research paradigm. According to Klenke *et al.* (2016), the pragmatic research paradigm was associated with practical orientation of undertaking research for the usefulness function. This study used both predictive correlational and descriptive research designs. The predictive correlational research design sought to establish a cause-and-effect relationship between the independent variables and dependent variables (Cohen *et al.*, 2005). The descriptive research design was used to describe the characteristics

of the variables and to provide a detailed account of the phenomena under study. This approach allowed for the collection and analysis of both quantitative and qualitative data, providing a comprehensive understanding of the research problem.

The target population of this study was the contractors undertaking the building works within Starehe sub county Nairobi region as these contractors would undertake the real estate projects. The study utilized the finance manager, project managers, project engineers, and contractors of the real estate projects that had been undertaken within the Nairobi County. These are presented in Table 1.

Table 1

Target Population

Category	Frequency	Percentage
Finance Manager	162	23.4%
Project Manager	126	18.2%
Project Engineer	139	20.1%
Contractors	265	38.3%
Total	692	100.0%

Difficulties in reaching the whole population needed a sampling strategy. Sampling was often used to get a subset of the target population that was representative of the whole target population. The following subthemes elaborate on these points. The study's sample size was determined using the following modifications of the Taro Yamane formula:

$$n = N / (1 + N(e^2)) \quad (1)$$

Where:

n = sample size N = target population e = margin of error at 5% (0.05)

This resulted in the following determination of the sample size:

$$n = 692 / (1 + 692(0.05^2)) = 253 \text{ respondents}$$

The study thus used 253 respondents for the study.

The study used proportionate stratified random sampling. This technique ensured that each stratum of the population was represented proportionally in the sample. The sample size for each stratum was calculated as follows:

$$nh = (Nh / N) * n \quad (2)$$

Where:

nh = sample size for stratum

h Nh = population size for stratum h N = total population size

n = total sample size

Table 2

Sample Size and Sampling Procedure

Category	Population (Nh)	Proportion (Nh/N) * n	Sample Size (nh)
Finance Manager	162	0.234 * 253 = 59.2	59
Project Manager	126	0.182 * 253 = 46.0	46
Project Engineer	139	0.201 * 253 = 50.9	51
Contractors	265	0.383 * 253 = 96.9	97
Total	692	1.000 * 253 = 253	253

The sample size for each stratum was calculated by multiplying the total sample size (253) by the proportion of each category in the population. The results were rounded to the nearest whole number to determine the final sample size for each stratum.

In this study, primary data were collected for use. This was the data that the researcher themselves collected as opposed to use of data that had already been collected by other third parties (Neergaard & Ulhøi, 2007). The primary data was collected in this study due to the ability of such data to address the research phenomenon directly and for the researcher to control the quality of such collected data (Cohen *et al.*, 2001). The study collected both quantitative data through use of structured questionnaire which was administered to the finance manager, project manager, project engineer, and contractors. The structured questionnaire was used due to ease of use of the tool in data collection, cost efficiency in its utilization and ability to reach a huge number of respondents.

The study also used interviews for the data collection purposes. The interviews were used in this study for the purposes of the collection of the qualitative data. The study used the semi-structured interviews. The study utilized an interview guide for the finance managers that had starting questions and then the researcher further asked other questions based on the manner in which the questions had been answered. The interviews were used due to the provision of in-depth information of the research phenomenon.

The data was evaluated using both descriptive and inferential statistics. The following subthemes elaborate on these points. The descriptive statistics were those statistics that were used for the purposes of summarizing the sample data (Pedace, 2013). On the other hand, Neuman *et al.* (2014) indicated that the descriptive statistics were used to describe basic patterns in the data. This study utilized the frequency distributions, means, standard deviation and Coefficient of Variation as the descriptive statistics for the study. The study used the linear regression analysis

$Y = \beta_0 + \beta X + \varepsilon$ where Y was the performance of the real estate projects, β_0 was a constant of the regression, β was the regression coefficient of X, X was the financial accountability practices and ε was the error term.

3 DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

3.1 INTRODUCTION

This study aimed to examine the influence of financial management practices on the performance of real estate projects in Starehe sub-county, Nairobi County. The research analyzed data through multiple indicator sets: project performance was measured through metrics including timely completion, budget adherence, scope fulfillment, and customer satisfaction; capital structure management was assessed via debt-equity ratios, maturity mix, and financing prioritization; financial planning was evaluated through funds sourcing, utilization planning, and budgeting practices; financial accountability was measured via control mechanisms, audit practices, and record-keeping procedures; and cost management was assessed through estimation practices, variation analysis, and historical data utilization. The study additionally examined how policy framework changes across interest rates, environmental standards, building standards, and taxation influenced these relationships.

Questionnaire Return Rate

Response rate refers to the proportion of completed questionnaires returned relative to the total number distributed in a survey research study. It serves as a crucial indicator of data quality and research validity, with higher response rates generally associated with reduced non-response bias and increased generalizability of findings. According to research methodology literature, response rates help determine whether the sample size is adequate for statistical

analysis and whether the responses received are representative of the target population. The response rate achieved in this study is presented in Table 3:

Table 3

Response Rate

Sample Size	Returned Questionnaires	Response Rate
253	212	83.8%

The study targeted a sample size of 253 respondents. Out of the 253 questionnaires administered, 212 were returned, representing a response rate of 83.8%. According to Fincham (2008), a response rate of 60% or higher is considered acceptable for survey research. The high response rate in this study can be attributed to several strategies employed, such as using a drop-off and pick-up method, conducting follow-ups with respondents, and ensuring the questionnaire was well understood by respondents.

Demographic characteristics of the Respondents

This section presents the demographic characteristics of the respondents, including gender distribution, highest level of education, experience as a building contractor, and number of real estate projects involved. These were further discussed as follows;

3.2 DISTRIBUTION OF RESPONDENTS BY GENDER

Gender distribution analysis in real estate project management research provides crucial insights into industry representation and diversity. Understanding the gender composition helps identify potential disparities in leadership roles, decision-making positions, and professional opportunities within the sector. This demographic information is particularly valuable for developing targeted strategies to promote gender balance and equal opportunities in real estate project management, while also helping to contextualize how gender diversity might influence project performance and management practices. The study examined the gender distribution of the respondents to understand the representation of males and females in the sample. The results are presented in Table 4.

Table 4*Distribution of Respondents by Gender*

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	172	81.1	81.1	81.1
Female	40	18.9	18.9	100.0
Total	212	100.0	100.0	

The results showed that the majority of the respondents were male 172 (81.1%), while females accounted for 40 (18.9%) of the sample. This gender distribution suggests that the real estate industry in Starehe sub-county, Nairobi, is predominantly male-dominated. The underrepresentation of females in the sample may reflect the broader gender disparities in the construction and real estate sectors, where women often face barriers to entry and advancement.

This finding aligns with research on gender representation in the real estate industry. Dirgayasa (2024) found that transformational leadership, often associated with female leaders, has a significant impact on human capital performance in the real estate industry. The study found that the real estate sector has traditionally been male-dominated, but there is growing recognition of the value that diverse leadership can bring improvement in performance (Dirgayasa, 2024). This suggests that while the current gender distribution in the industry remains skewed, there may be emerging opportunities for increased female participation and leadership in the sector.

Qualitative data from interviews with finance managers in the real estate sector provide further context to this gender disparity. One finance manager remarked:

"We've seen a gradual increase in female professionals entering the real estate sector over the past decade, particularly in areas like financial management and project planning. However, there's still a significant gap in representation, especially in senior positions and on construction sites."

3.3 DISTRIBUTION OF RESPONDENTS OF HIGHEST LEVEL OF EDUCATION

Educational qualification analysis in real estate project management is essential for understanding the human capital development and professional expertise within the sector. The educational background of project managers and key stakeholders can significantly influence decision-making processes, technical competency, and overall project success. This demographic information helps assess the industry's professional development needs, training requirements, and the relationship between educational qualifications and project performance

outcomes. The study investigated the highest level of education attained by the respondents to understand their educational background and its potential influence on their roles in real estate projects. The results are presented in Table 5.

Table 5

Distribution of Respondents by Highest Level of Education

Level of Education	Frequency	Percent	Valid Percent	Cumulative Percent
Secondary School	17	8.0	8.0	8.0
Diploma	121	57.1	57.1	65.1
Bachelor education	69	32.5	32.5	97.6
Masters Degree	5	2.4	2.4	100.0
Total	212	100.0	100.0	

The distribution of educational qualifications in this study, where 57.1% of respondents held diplomas, 32.5% had bachelor's degrees, 8% had secondary education, and only 2.4% held master's degrees, reveals significant implications for the real estate sector in Starehe sub-county. The predominance of diploma-level education suggests a strong foundation in technical and practical skills, but potentially indicates limitations in advanced theoretical knowledge and strategic management capabilities. This educational composition could impact the sophistication of financial management practices, risk assessment approaches, and long-term strategic project planning, potentially affecting the sector's capacity to adopt advanced project management methodologies and implement complex financial models. The relatively low proportion of advanced degree holders (particularly the 2.4% with master's degrees) might constrain the sector's ability to handle increasingly complex regulatory requirements and market dynamics that require higher-level analytical skills. This distribution also signals a potential need for enhanced professional development programs and continuing education initiatives, particularly as the real estate sector becomes more technologically advanced and financially complex, requiring more sophisticated management approaches and analytical capabilities.

This finding is consistent with research on the importance of education in the real estate sector. Sari (2023) found that intellectual capital, including human capital developed through education, significantly influences real estate firms' value. The study found that educational attainment plays a crucial role in developing the knowledge and skills necessary for effective management of real estate projects (Sari, 2023). This suggests that the high proportion of

respondents with post-secondary education in the current study are expected to positively impact project performance.

However, the relatively low percentage of respondents with master's degrees (2.4%) may indicate a potential area for improvement in terms of advanced education in the sector. As Yosanti (2023) points out, higher levels of education, particularly in financial management and strategic planning, can contribute to improved profitability and value creation in real estate firms.

Qualitative data from interviews with finance managers provide additional context to these findings. One manager stated:

"While we value practical experience highly, we're increasingly seeing the benefits of advanced education, especially in areas like financial modelling and risk management. There's definitely a push towards encouraging further education among our staff."

3.4 DISTRIBUTION OF RESPONDENTS OF EXPERIENCE AS A BUILDING CONTRACTOR

Experience level analysis in real estate project management provides critical insights into the professional maturity and practical expertise within the industry. Years of experience as a building contractor can significantly impact project handling capabilities, risk management effectiveness, and overall project success rates. This demographic information helps understand how experiential learning influences project outcomes and indicates the industry's capacity to handle complex real estate developments. The study examined the respondents' experience as building contractors to gauge their level of expertise and exposure to real estate projects. The results are presented in Table 6.

Table 6

Distribution of Respondents by Experience as a Building Contractor

Experience	Frequency	Percent	Valid Percent	Cumulative Percent
Below 5 Years	65	30.7	30.7	30.7
5-10 Years	123	58.0	58.0	88.7
11-15 Years	24	11.3	11.3	100.0
Total	212	100.0	100.0	

The majority of the respondents (58%) had been building contractors for 5-10 years. This was followed by those with less than 5 years of experience (30.7%) and those with 11-15

years of experience (11.3%). The results indicate that most of the respondents have substantial experience in the construction industry, with over two-thirds of them having more than 5 years of experience as building contractors.

This finding aligns with research highlighting the importance of experience in the real estate sector. Fadeyi *et al.* (2022) found that experience and expertise significantly influence capital flows and project performance in real estate markets. They note that experienced contractors and managers are better equipped to navigate market fluctuations and project complexities, leading to improved outcomes (Fadeyi *et al.*, 2022).

However, the relatively high proportion of respondents with less than 5 years of experience (30.7%) suggests a significant influx of new professionals into the sector. This could be seen as both a challenge and an opportunity. As Zhang (2023) points out, while new entrants bring fresh perspectives and potentially innovative approaches, they may lack the deep industry knowledge that comes with years of experience.

Qualitative data from interviews with finance managers shed further light on this aspect. One manager remarked:

"We value the energy and new ideas that younger professionals bring to the table. But there's no substitute for the kind of intuition and problem-solving skills that come with years of hands-on experience in this industry. It's about striking the right balance."

3.5 DISTRIBUTION OF RESPONDENTS BY NUMBER OF REAL ESTATE PROJECTS INVOLVED

Project involvement analysis offers valuable insights into the depth and breadth of practical experience in real estate project management. The number of projects managed or participated in indicates exposure to diverse challenges, management scenarios, and problem-solving opportunities. This demographic information helps assess the practical competency levels within the industry and the relationship between project exposure and management effectiveness. The study investigated the number of real estate projects the respondents had been involved in to assess their level of exposure and experience in the industry. The results are presented in Table 7.

Table 7

Distribution of Respondents by Number of Real Estate Projects Involved

Number of Projects	Frequency	Percent	Valid Percent	Cumulative Percent
Below 10 Projects	92	43.4	43.4	43.4
10-20 Projects	107	50.5	50.5	93.9
21-50 Projects	13	6.1	6.1	100.0
Total	212	100.0	100.0	

Half of the respondents (50.5%) had been involved in 10-20 real estate projects. This was followed by those who had been involved in less than 10 projects (43.4%) and those who had been involved in 21-50 projects (6.1%). The results suggest that the respondents have varying levels of exposure to real estate projects, with the majority having participated in multiple projects.

This finding is consistent with research on the importance of project experience in the real estate sector. Xu (2023) found that experience across multiple projects contributes to improved decision-making and risk management in real estate investments. The study found that professionals who have been involved in a diverse range of projects are better equipped to handle the complexities and uncertainties inherent in real estate development (Xu, 2023).

However, the relatively high proportion of respondents who have been involved in fewer than 10 projects (43.4%) suggests that there is a significant portion of professionals with limited project exposure. This could potentially impact the overall performance of real estate projects in the region. As Murunga (2023) points out, limited project experience can lead to challenges in risk identification and mitigation, potentially affecting project outcomes.

Qualitative data from interviews with finance managers provide additional insights into this aspect. One manager stated:

"Each project brings its own unique challenges and learning opportunities. We've found that professionals who have worked on a variety of projects tend to be more adaptable and better at problem-solving. That's why we try to rotate our team members across different types of projects when possible."

3.5.1 Financial Accountability and Performance of Real Estate Projects

Table 8 presents descriptive statistics for various indicators used to measure financial accountability and its impact on the performance of real estate projects. These indicators cover aspects such as control mechanisms for adherence to funds utilization plans, internal control

mechanisms for funds allocation to project tasks, monitoring mechanisms for project cash flow demands, control measures for project cash and capital budgeting analysis, project finance expenditure audits, professional financial authorization mechanisms, maintenance of financial expenditure records, utilization of project finance audits for financial decision making, and the presence of cost plans for projects.

Table 8*Descriptive Statistics for Financial Accountability and Performance of Real Estate Projects*

Statements	VSE	SE	ME	LE	VLE	Total	
	Freq %	Freq %	Freq %	Freq %	Freq %	Mean	Std. Dev
The project performance team has control mechanisms to ensure the funds utilization plan is adhered to	0 (0.0%)	17 (8.0%)	52 (24.5%)	119 (56.1%)	24 (11.3%)	3.71	0.772
There are always internal control mechanisms on funds allocation to project tasks	6 (2.8%)	33 (15.6%)	80 (37.7%)	72 (34.0%)	21 (9.9%)	3.33	0.950
Our company has monitoring mechanisms to ensure that the project cash flow demands are adhered to	3 (1.4%)	27 (12.7%)	84 (39.6%)	63 (29.7%)	35 (16.5%)	3.47	0.961
During real estate project performance, there is a control mechanism to ensure that project cash budgeting analysis is adhered to	14 (6.6%)	32 (15.1%)	37 (17.5%)	87 (41.0%)	42 (19.8%)	3.52	1.162
There are no control measures to ensure that project capital budgeting analysis is adhered to	0 (0.0%)	31 (14.6%)	76 (35.8%)	59 (27.8%)	46 (21.7%)	3.57	0.988
A project finance expenditure audit is not always undertaken for the funds expended in the projects	0 (0.0%)	20 (9.4%)	73 (34.4%)	93 (43.9%)	26 (12.3%)	3.59	0.824
There are always no professional financial authorization mechanisms on the project performance	0 (0.0%)	25 (11.8%)	75 (35.4%)	68 (32.1%)	44 (20.8%)	3.62	0.944
Financial expenditure records are always not kept during the project performance process	14 (6.6%)	15 (7.1%)	88 (41.5%)	81 (38.2%)	14 (6.6%)	3.31	0.943
The project finance audits are always not utilized for the purposes of financial decision-making	0 (0.0%)	18 (8.5%)	44 (20.8%)	82 (38.7%)	68 (32.1%)	3.94	0.932
The projects undertaken in our firms always have a cost plan undertaken	3 (1.4%)	18 (8.5%)	44 (20.8%)	83 (39.2%)	64 (30.2%)	3.88	0.983
Composite Mean and Standard Deviation	-	-	-	-	-	3.59	0.946

"The project performance team has control mechanisms to ensure funds utilization plan is adhered to" (M = 3.71, SD = 0.772). The mean score of 3.71 falls within the large extent range (3.41 to 4.2), suggesting that respondents tended to a large extent to perceive the presence of control mechanisms to ensure adherence to the funds utilization plan. The standard deviation of 0.772, which is less than 1.0, indicates a high consensus among respondents. The frequency distribution strongly is supported by this finding, with 56.1% of respondents indicating a large

extent, 24.5% indicating a moderate extent, and 11.3% indicating a very large extent of control mechanisms for funds utilization plan adherence.

This finding aligns with the study by Otubor and Salawu (2017), who emphasized the importance of financial accountability mechanisms, including internal controls, to ensure the proper utilization of financial resources during project performance. The current study's results suggest that respondents largely perceived the presence of such control mechanisms, which could contribute to effective financial accountability and project performance, as highlighted by Eton *et al.* (2018).

Research by Murunga (2023) is supported by this finding, emphasizing the critical role of control mechanisms in managing financial risks in real estate projects. The study found that effective control mechanisms for funds utilization can significantly reduce the likelihood of financial mismanagement and improve overall project performance (Murunga, 2023).

The high consensus among respondents ($SD = 0.772$) suggests that the implementation of control mechanisms for funds utilization is a well-established practice in the Kenyan real estate sector. This aligns with the observations of Fadeyi *et al.* (2022), who found that robust financial control mechanisms are crucial for managing capital flows and enhancing project performance in real estate markets.

Qualitative insights from interviews with finance managers provide additional context to these findings. One manager stated:

"Having strong control mechanisms for funds utilization is non-negotiable in our projects. It not only ensures that we're using resources as planned but also builds trust with our stakeholders. We've seen how these controls directly contribute to better project outcomes and financial performance."

"There are always internal control mechanisms on funds allocation to project tasks" ($M = 3.33$, $SD = 0.950$). The mean score of 3.33 falls within the moderate extent range (2.61 to 3.4), suggesting that respondents tended to a moderate extent to perceive the presence of internal control mechanisms for funds allocation to project tasks. The standard deviation of 0.950, which is less than 1.0, indicates a high consensus among respondents. The frequency distribution is supported by this interpretation, with 37.7% of respondents indicating a moderate extent, 34% indicating a large extent, and 15.6% indicating a small extent of internal control mechanisms for funds allocation.

This findings supports to the study by Otubor and Salawu (2017), who highlighted internal controls as part of financial accountability mechanisms. The current study's results

suggest that respondents moderately perceived the presence of internal control mechanisms for funds allocation, which could potentially impact effective financial accountability and resource allocation if not addressed adequately.

Research by Alkomsan (2024) is supported by this finding, emphasizing the importance of internal control mechanisms in enhancing the financial performance of real estate companies. The author argues that robust internal controls for funds allocation can lead to more efficient resource utilization and improved project outcomes (Alkomsan, 2024). The moderate extent to which respondents in the current study perceived the presence of these mechanisms suggests that there may be room for improvement in this area within the Kenyan real estate sector.

The high consensus among respondents ($SD = 0.950$) indicates a general agreement on the moderate implementation of internal control mechanisms for funds allocation. This aligns with the observations of Zada (2024), who found that the effectiveness of internal controls can vary across different real estate firms and projects, often depending on factors such as organizational structure, project complexity, and management practices.

Qualitative data from interviews with finance managers provide additional insights into this aspect. One manager commented:

"We have internal control mechanisms for funds allocation, but their implementation isn't always consistent across all projects. We're working on standardizing these controls and ensuring they're robust enough to handle the complexities of our larger projects. It's an ongoing process of improvement."

"Our company has monitoring mechanism to ensure that the project cash flow demands are adhered to" ($M = 3.47$, $SD = 0.961$). The mean score of 3.47 falls within the large extent range (3.41 to 4.2), suggesting that respondents tended to a large extent to perceive the presence of monitoring mechanisms to ensure adherence to project cash flow demands. The standard deviation of 0.961, which is less than 1.0, indicates a high consensus among respondents. The frequency distribution is supported by this finding, with 39.6% of respondents indicating a moderate extent, 29.7% indicating a large extent, and 16.5% indicating a very large extent of monitoring mechanisms for cash flow demand adherence.

This finding aligns with the study by Abubakar *et al.* (2017), who emphasized monitoring as part of financial accountability mechanisms. The current study's results suggest that respondents largely perceived the presence of monitoring mechanisms for cash flow demands, which could contribute to effective financial accountability and resource management, as highlighted by Eton *et al.* (2018).

Research by Marzouk (2024) is supported by this finding, emphasizing the importance of monitoring cash flow demands in real estate project phasing. The author argues that effective monitoring of cash flow demands is crucial for optimizing project profitability and ensuring timely project delivery (Marzouk, 2024). The large extent to which respondents in the current study perceived the presence of these monitoring mechanisms suggests that this is a well-recognized practice in the Kenyan real estate sector.

The high consensus among respondents ($SD = 0.961$) indicates a general agreement on the implementation of monitoring mechanisms for cash flow demands. This aligns with the observations of Murunga (2023), who found that effective cash flow monitoring is a key factor in managing financial risks and ensuring project success in real estate development.

Qualitative insights from finance managers provide additional context to these findings. One manager stated:

"Monitoring cash flow demands is critical for our projects. It helps us anticipate potential issues and make timely adjustments. We've invested in robust systems to track and analyze cash flows, which has significantly improved our ability to manage project finances effectively."

"During real estate project performance there is control mechanism to ensure that project cash budgeting analysis is adhered to" ($M = 3.52$, $SD = 1.162$). The mean score of 3.52 falls within the large extent range (3.41 to 4.2), suggesting that respondents tended to a large extent to perceive the presence of control mechanisms to ensure adherence to cash budgeting analysis during project performance. However, the standard deviation of 1.162, which is greater than 1.0, indicates a lower consensus among respondents. The frequency distribution reflects this lower consensus, with 41% of respondents indicating a large extent, 19.8% indicating a very large extent, 17.5% indicating a moderate extent, 15.1% indicating a small extent, and 6.6% indicating a very small extent of control mechanisms for cash budgeting analysis adherence.

This findings supports to the study by Abubakar *et al.* (2017), who emphasized budgeting as part of financial accountability mechanisms. The current study's results suggest that respondents largely perceived the presence of control mechanisms for cash budgeting analysis adherence, which could contribute to effective financial accountability and resource management. However, the lower consensus may indicate variations in practices or perceptions among respondents.

Research by Tin (2024) is supported by this finding, highlighting the importance of adherence to cash budgeting analysis in real estate price forecasting and project performance.

The study found that robust control mechanisms for cash budgeting can lead to more accurate financial projections and better-informed decision-making (Tin, 2024). The large extent to which respondents in the current study perceived these control mechanisms, despite the lower consensus, suggests that this is a recognized practice in the Kenyan real estate sector, albeit with some variability in implementation or perception.

The lower consensus among respondents ($SD = 1.162$) indicates varying experiences or perceptions regarding the control mechanisms for cash budgeting analysis adherence. This aligns with the observations of Zhang (2023), who found that the sophistication and effectiveness of financial control mechanisms can vary significantly across different real estate firms and projects, often depending on factors such as project size, organizational resources, and management practices.

Qualitative data from interviews with finance managers provide additional insights into this aspect. One manager commented:

"We have control mechanisms in place for cash budgeting analysis, but their effectiveness can vary across projects. For larger, more complex projects, we tend to have more robust controls. We're working on standardizing these mechanisms across all our projects to ensure consistent adherence to cash budgeting analysis."

"There are no control measures to ensure that project capital budgeting analysis are adhered to" ($M = 3.57$, $SD = 0.988$). The mean score of 3.57 falls within the large extent range (3.41 to 4.2), suggesting that respondents tended to a large extent to perceive a lack of control measures to ensure adherence to project capital budgeting analysis. The standard deviation of 0.988, which is close to 1.0, indicates a slightly lower consensus among respondents. The frequency distribution reflects this lower consensus, with 35.8% of respondents indicating a moderate extent, 27.8% indicating a large extent, 21.7% indicating a very large extent, and 14.6% indicating a small extent of the lack of control measures for capital budgeting analysis adherence.

This finding contrasts with the study by Abubakar *et al.* (2017), who emphasized budgeting as part of financial accountability mechanisms. The current study's results suggest that respondents largely perceived a lack of control measures to ensure adherence to capital budgeting analysis, which could potentially impact effective financial accountability, resource allocation, and decision-making, as highlighted by Eton *et al.* (2018) and Doussy and Doussy (2016).

Research by Moorhead (2024) is supported by this finding, emphasizing the critical role of capital budgeting analysis in real estate development feasibility studies. The author argues that the absence of robust control measures for capital budgeting adherence can lead to suboptimal investment decisions and potentially impact project success (Moorhead, 2024). The large extent to which respondents in the current study perceived a lack of these control measures suggests that this is a significant area for improvement in the Kenyan real estate sector.

The slightly lower consensus among respondents ($SD = 0.988$) indicates some variation in perceptions or experiences regarding control measures for capital budgeting analysis. This aligns with the observations of Kenga (2024), who found that the implementation of financial control measures can vary across different real estate firms and projects, often influenced by factors such as organizational maturity, project complexity, and management priorities.

Qualitative insights from finance managers provide additional context to these findings. One manager stated:

"We recognize the importance of adhering to capital budgeting analysis, but implementing consistent control measures has been challenging. Different projects often have different approaches, and we're working on developing a more standardized system to ensure better adherence across all our projects."

"A project finance expenditure audit is not always undertaken for the funds expended in the projects" ($M = 3.59$, $SD = 0.824$). The mean score of 3.59 falls within the large extent range (3.41 to 4.2), suggesting that respondents tended to a large extent to perceive that project finance expenditure audits are not always undertaken. The standard deviation of 0.824, which is less than 1.0, indicates a high consensus among respondents. The frequency distribution is supported by this finding, with 43.9% of respondents indicating a large extent, 34.4% indicating a moderate extent, and 12.3% indicating a very large extent of project finance expenditure audits not being undertaken.

This finding contrasts with the study by Abubakar *et al.* (2017), who identified auditing as part of financial accountability mechanisms. The current study's results suggest that respondents largely perceived a lack of project finance expenditure audits, which could potentially impact effective financial accountability, transparency, and decision-making, as emphasized by Eton *et al.* (2018) and Doussy and Doussy (2016).

Research by Murunga (2023) is supported by this finding, highlighting the importance of regular financial audits in managing risks in real estate projects. The author argues that the absence of consistent project finance expenditure audits can lead to increased financial risks

and potentially impact project outcomes (Murunga, 2023). The large extent to which respondents in the current study perceived a lack of these audits suggests that this is a significant area for improvement in the Kenyan real estate sector.

The high consensus among respondents ($SD = 0.824$) indicates a widespread recognition of the limited implementation of project finance expenditure audits. This aligns with the observations of Fadeyi *et al.* (2022), who found that the frequency and thoroughness of financial audits can significantly impact capital flows and project performance in real estate markets.

Qualitative data from interviews with finance managers provide additional insights into this challenge. One manager commented: "We understand the importance of project finance

3.6 CORRELATION ANALYSIS OF FINANCIAL ACCOUNTABILITY AND PERFORMANCE OF REAL ESTATE PROJECTS

The correlation analysis was undertaken to examine the relationship between financial accountability and performance of real estate projects. This analysis specifically focused on understanding how various aspects of financial accountability, including internal controls, monitoring mechanisms, and audit practices, relate to project success indicators. The correlation analysis provides insights into the strength and direction of this relationship, which is crucial for understanding the role of financial management in project outcomes.

Table 9

Correlation Analysis of Financial Accountability and Performance of Real Estate Projects

	Performance of Real Estate Projects	Financial Accountability
Performance of Real Estate Projects	Pearson Sig. N	Correlation (2-tailed) 1 212
Financial Accountability	Pearson Sig. N	Correlation (2-tailed) 0.681** 0.000 212

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

As shown in Table 9, the correlation analysis revealed a significant positive correlation between financial accountability and performance of real estate projects ($r = 0.681$, $p < 0.001$,

n = 212). According to statistical authorities, correlation coefficients can be interpreted based on their magnitude, where values between 0.60 and 0.79 indicate a strong positive relationship. The analysis demonstrates three key characteristics: first, the positive direction indicates that increases in financial accountability are associated with improvements in project performance; second, the magnitude shows a strong relationship between the variables as evidenced by the correlation coefficient of 0.681; and third, the relationship is statistically significant at the 0.01 level, suggesting a highly reliable relationship between the variables.

The strong positive correlation aligns with findings from several studies in the literature review. For instance, Abubakar *et al.* (2017) conceptualized financial accountability as employing instruments of auditing, budgeting, and accounting, which were found to significantly impact project outcomes. This finding is further supported by Eton *et al.* (2018), who emphasized that financial accountability is crucial for decision-making in the allocation of scarce financial resources. Additionally, Rotich and Were (2017) found that accountability levels in financial expenditure enhanced through proper financial records significantly influenced project success in the Kenyan context. The current study's correlation results support these earlier findings, suggesting that enhanced financial accountability measures are consistently associated with improved project performance outcomes in the real estate sector.

Furthermore, the correlation findings demonstrate alignment with Simanjuntak's (2018) research, which found that project cost management strategies, including financial control procedures and budgeting, significantly affected construction project outcomes. The current study's results also support Rauzana's (2016) findings linking effective financial management to reduced project cost overruns. This convergence of findings across different studies and contexts strengthens the evidence for the importance of financial accountability in project performance. The strong correlation observed in the current study suggests that real estate projects implementing robust financial accountability measures are more likely to achieve successful outcomes, consistent with the patterns observed in previous research.

The strength of the correlation is particularly noteworthy when considered alongside Gbahabo and Ajuwon's (2017) findings regarding the impact of financial management on project delays and overruns. Their research emphasized that proper financial controls and accountability measures are essential for preventing project failures. Similarly, Belachew *et al.* (2017) found that accuracy in financial management practices significantly influenced project outcomes through improved estimation and resource allocation. The current study's strong correlation coefficient provides empirical support for these findings, demonstrating that the

relationship between financial accountability and project performance is not only theoretically sound but also practically significant in the real estate sector. This consistency across studies suggests that financial accountability should be considered a critical factor in project management frameworks.

3.7 REGRESSION ANALYSIS OF FINANCIAL ACCOUNTABILITY AND PERFORMANCE OF REAL ESTATE PROJECTS

The regression analysis examines the effect of financial accountability on real estate project performance. According to Gordon (2023), regression analysis is crucial for understanding the predictive relationship between variables and quantifying the extent to which independent variables explain variations in the dependent variable. This analysis presents three key components: the model summary, ANOVA results, and regression coefficients.

3.8 MODEL SUMMARY OF FINANCIAL ACCOUNTABILITY ON PERFORMANCE OF REAL ESTATE PROJECTS

The analysis focuses on examining the role of financial accountability in the performance of real estate projects. By evaluating the relationship between financial accountability and project outcomes, the goal is to understand how effective financial management practices influence the success of these projects.

Table 10

Model Summary of Financial Accountability on Performance of Real Estate Projects

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.681 ^a	0.464	0.461	0.43401

a. Predictors: (Constant), Financial Accountability

The R value of 0.681 indicates the strength of the linear relationship between financial accountability and project performance. According to Ho (2023), in social science research, R values between 0.60 and 0.80 indicate a strong positive relationship between variables. Heumann *et al.* (2023) further emphasize that this strength of relationship suggests a robust predictive capability of the independent variable. The R value in this study demonstrates a

strong positive relationship between financial accountability and project performance, indicating that improvements in financial accountability are significantly associated with enhanced project outcomes.

The R Square value of 0.464 indicates that financial accountability explains 46.4% of the variance in real estate project performance. According to Maina (2021), in social science research, R Square values above 0.40 represent moderate explanatory power, while values above 0.60 indicate strong explanatory power. Gordon (2023) suggests that R Square values should be interpreted within the context of the research field, noting that in behavioral and social sciences, values between 0.30 and 0.50 often represent meaningful relationships. This moderate level of explanatory power aligns with Shahibi *et al.*'s (2019) findings regarding the influence of project cost management on project success.

3.9 ANOVA OF FINANCIAL ACCOUNTABILITY ON PERFORMANCE OF REAL ESTATE PROJECTS

The ANOVA (Analysis of Variance) test is used to assess the overall significance of the regression model, helping to determine whether the independent variable—in this case, financial accountability—has a statistically significant impact on the performance of real estate projects. By comparing the variance explained by the model to the variance left unexplained, the ANOVA test evaluates how well the model fits the data and whether financial accountability is a valid predictor of project performance. This analysis provides an important measure of the strength and relevance of the relationship between financial accountability and project outcomes.

Table 11

ANOVA of Financial Accountability and Performance of Real Estate Projects

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.243	1	34.243	181.722	0.000 ^b
	Residual	39.599	210	0.188		
	Total	73.842	211			

a. Dependent Variable: Performance of Real Estate Projects

b. Predictors: (Constant), Financial Accountability

The ANOVA results assess the overall significance of the regression model. According to Maina (2021), the F-statistic and its associated p-value determine whether the regression model significantly predicts the dependent variable. The analysis shows an F-statistic of 181.722 (df = 1, 210) with $p < 0.001$. Ho (2023) states that a p-value below 0.05 indicates statistical significance, while Maina (2021) emphasizes that large F-values relative to their critical values suggest strong model fit. The highly significant F-statistic in this study confirms that the regression model appropriately fits the data and that financial accountability is a valid predictor of project performance.

3.10 COEFFICIENTS OF FINANCIAL ACCOUNTABILITY ON PERFORMANCE OF REAL ESTATE PROJECTS

The examination of the coefficients for financial accountability provides further insights into the strength and direction of its impact on the performance of real estate projects. By analyzing the unstandardized and standardized coefficients, along with the associated t-values and p-values, this section assesses the significance of financial accountability as a predictor of project performance. The regression results allow for a deeper understanding of how variations in financial accountability influence project outcomes, offering a clear picture of its role in enhancing project success. This analysis is key to validating the hypothesis that financial accountability positively affects the performance of real estate projects.

Table 12

Coefficients for Regression of Financial Accountability and Performance of Real Estate Projects

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.492	0.154		9.688	0.000
	Financial Accountability	0.571	0.042	0.681	13.481	0.000

a. Dependent Variable: Performance of Real Estate Projects

The examination of Hypothesis 1 investigates the effect of financial accountability on the performance of real estate projects. The null hypothesis (H_0) states that financial accountability has no significant effect on the performance of real estate projects. The regression results reveal an unstandardized coefficient ($\beta = 0.571$, $t(210) = 13.481$, $p < 0.001$). According to Ho (2023), in social science research, the decision rule for hypothesis testing employs a significance level of $\alpha = 0.05$, with p-values below this threshold indicating statistical significance. Gordon (2023) further emphasizes that t-values exceeding 1.96 in absolute value indicate significant relationships at this level. Comparing the obtained p-value (< 0.001) with the decision rule ($\alpha = 0.05$) and the t-value (13.481) with the critical value (1.96), the null hypothesis is rejected. Following Gordon's (2023) guidelines for interpreting unstandardized coefficients, the value of 0.571 indicates that a one-unit increase in financial accountability leads to a 0.571-unit increase in project performance, holding other factors constant. This positive coefficient demonstrates that enhanced financial accountability practices contribute to improved project performance outcomes.

The comparison of these findings with previous research reveals important convergences in the literature. The current study's results support Rotich and Were's (2017) findings that accountability levels in financial expenditure significantly influence project success through proper financial records and stakeholder reporting. Similarly, the findings align with Abubakar *et al.*'s (2017) research demonstrating that financial accountability instruments, including auditing and budgeting, play crucial roles in project outcomes. Additionally, Eton *et al.* (2018) emphasized that financial accountability is vital for decision-making in resource allocation, which the current study's positive coefficient empirically supports. The significant relationship indicated by the high t-value supports these earlier findings regarding the crucial role of financial accountability in project performance.

Further analysis of the literature reveals additional support for the study's findings. The significant positive relationship observed aligns with Simanjuntak's (2018) research, which found that project cost management strategies, particularly financial control procedures and budgeting, substantially affected construction project outcomes. The current study's results also support Rauzana's (2016) findings linking effective financial management to reduced project cost overruns. Moreover, Kassa's (2018) assertion that effective financial management leads to better decision-making and resource allocation is empirically supported by the strong positive coefficient observed in this study. These convergent findings across different contexts

strengthen the evidence for the importance of financial accountability in project performance, with the current study's significant t-value providing robust statistical validation.

The magnitude of the relationship demonstrated in this study also finds support in broader project management literature. Gbahabo and Ajuwon's (2017) research on project overruns and delays emphasized that proper financial controls and accountability measures are essential for preventing project failures. Belachew *et al.* (2017) further found that accuracy in financial management practices significantly influenced project outcomes through improved estimation and resource allocation. The current study's strong positive coefficient (0.571) provides empirical validation for these previous findings, demonstrating that enhanced financial accountability measures contribute substantially to improved project performance outcomes. According to Heumann *et al.* (2023), such consistency in findings across multiple studies and contexts provides strong evidence for the reliability and generalizability of the relationship between variables. This consistency suggests that financial accountability should be considered a fundamental component of project management frameworks in the real estate sector.

4 CONCLUSIONS

In establishing the extent to which financial accountability influences the performance of real estate projects in Starehe sub-county, Nairobi County, the study concludes that financial accountability has a significant impact on project performance. The evidence shows strong positive relationships and moderate explanatory power. Robust financial accountability mechanisms, including control systems, monitoring procedures, and internal controls for funds allocation, are vital for ensuring project success within the region.

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