
# RESOURCE ALLOCATION AND PERFORMANCE OF HOUSING CONSTRUCTION PROJECT IN KIAMBU COUNTY, KENYA

**Kibagendi Julius Asuma & Dr. Paul Sang, PhD**

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
*Vol. 11, Iss.4, pp 1108 – 1120, November 17, 2024. www.strategicjournals.com, © Strategic Journals*

# RESOURCE ALLCATION AND PERFORMANCE OF HOUSING CONSTRUCTION PROJECT IN KIAMBU COUNTY, KENYA

**Kibagendi Julius Asuma [1] & Dr. Paul Sang, PhD [2]**

[1] MBA Student, School of Business, Economics and Tourism, Kenyatta University, Kenya
[2] Senior Lecturer, Management Science Department, School of Business, Economics and Tourism, Kenyatta University, Kenya

**Accepted: November 3, 2024**

**DOI: http://dx.doi.org/10.61426/sjbcm.v11i4.3143**

**ABSTRACT**

*Housing construction projects are essential for fulfilling basic human needs and generating revenue for developers, drawing significant attention in nations like Kenya. The construction of commercial housing projects is often fraught with challenges such as scope reduction, poor quality, and project delays. A notable example is the auctioning of 25 completed apartment buildings in Thindigua and along Mirema Drive due to excessive finishing costs. Additionally, in March 2022, a five-story building collapsed in Kinoo, Kiambu County. Further tragedies occurred in Ruaka and Seasons Kasarani in November 2022, resulting in loss of life. Structural issues have also been identified as recurring problems. These events prompted an investigation into how different resource alloction impact the successful completion of commercial housing projects in Kiambu County. Between 2019 and 2022, a descriptive research approach was employed to examine 120 completed housing complexes across 12 sub-counties in Kiambu. The majority of the survey participants, 92%, were professionals such as architects, engineers, designers, builders, and subcontractors. The projects were chosen using a stratified random sampling process. To better understand how to optimize projects and manage resources, this study used the frameworks of Resource-Based Theory. Graphs and tables were used to display the outcomes of the data analysis, which included both descriptive and inferential statistics. The findings revealed that resource allocation significantly influence the performance of housing projects. Key recommendations include the adoption of efficient human resource strategies. Proposed future studies was to expand beyond Kiambu County to explore additional resource management factors affecting project outcomes.*

***Key Words:*** *Human Resources, Financial, Material, Resource Allocation*

**CITATION:** Kibagendi, J. A. & Sang, P. (2024). Resource allocation and performance of housing construction project in Kiambu County, Kenya. *The Strategic Journal of Business & Change Management,* 11 (4), 1108 – 1120. http://dx.doi.org/10.61426/sjbcm.v11i4.3143

## INTRODUCTION

The housing sector is a fundamental component of the construction industry, contributing nearly 10% to global GDP (Wuni, & Shen, 2020). Approximately 50% of total investment in construction is allocated to housing projects (Merrow, 2024). The global significance of this sector underscores the necessity for effective cost management in housing projects to ensure their success.

In Kenya's Kiambu County and various regions around the world, ongoing housing initiatives are essential to address the pressing shelter needs of individuals and businesses. The increasing number of housing projects reflects a growing demand, alongside more intricate design requirements and heightened client expectations (Ahmed & Arocho, 2021).

Successful completion of these projects relies on the strict adherence to timelines, maintenance of quality standards, and effective budget management—criteria that are widely recognized as fundamental indicators of project success. Therefore, effective resource management and cost control are vital for achieving the desired outcomes in the housing sector.

Effective project management strategies are essential for achieving favorable outcomes in initiatives. Strategic planning influences resource allocation, activity coordination, and goal attainment. Project success is possible with these tactics properly implemented (Jackson, 2020), however project failure, overrun budget, and delays are possible outcomes of improper implementation. Timely completion rates surpass 89% for businesses with good project management practices, compared to 36% for those lacking effective processes, according to the Project Management Institute's (Nazir et al. 2021)).

Effective resource allocation depends significantly on stakeholder collaboration. The active involvement of stakeholders, including project sponsors, team members, and financial professionals, in the budgeting process fosters the creation of a realistic and comprehensive budget aligned with the project's strategic objectives (Odhiambo, Wakibia & Sakwa, 2020). Collaborative budgeting not only promotes transparency and accountability but also secures stakeholder support and commitment throughout the project lifecycle. Aghania, Ramzani, and Raju (2023) emphasize that establishing strong communication and collaboration among stakeholders can lead to improved budgeting accuracy, more efficient resource allocation, and ultimately, better project outcomes.

A lot of new homes have been constructed in Kiambu County, Kenya, in the last several years. The county has initiated a number of programs to address the housing shortage, enhance infrastructure, and promote sustainable urban development. A 200-acre plot in Ruiru was to be acquired by the National Housing Corporation of Kenya by 2022 for the Legacy Ridges project, which sought to construct dwellings for more than 20,000 people. Apartments with two bedrooms are expected to start at about Shs 3.5 million, while those with three bedrooms will cost approximately Shs 4.3 million. In addition, there will be three-bedroom maisonettes priced at Shs 8.5 million and four-bedroom flats available for Shs 9.7 million. In addition to maisonettes and servant quarters, the development intends to incorporate 2,800 two- or three-bedroom flats.

The county's housing initiatives nevertheless face obstacles despite these efforts. For housing programs to be executed successfully, effective management of resources is necessary. For example, according to the Kiambu County Government Strategic Plan (2023/7), the affordable housing program in Kiambu has had trouble allocating funds properly. The entire execution of the project has been affected by the delays caused by the insufficient allocation of resources. The project is still proceeding and new resources have been committed, but when exactly it will be finished is still up in the air. For housing projects to be successfully implemented, it is crucial to

accurately analyze resource needs. However, current market data, which is needed for exact cost predictions, is not always easily available in the county. Poor outcomes that fall short of housing needs might stem from inadequate funding, postponements in project implementation, and inaccurate financial predictions.

The success of housing projects in Kiambu County depends on the project team members' ability to communicate and work together effectively. Odhiambo, Wakibia, and Sakwa (2020) stress the need of stakeholder engagement before a project begins to guarantee that all pertinent interests are addressed. Project timeframes and quality might be jeopardized due to ineffective communication channels among stakeholders. Effective execution also requires careful management and monitoring of project resources. To guarantee the most efficient use of resources, accurate record-keeping is required, which comprises a methodical strategy for checking, assessing, and auditing the resources that have been used (Mbati, 2019). In this way, project managers can swiftly assess the situation, pinpoint the problem areas, and make educated decisions to move the project forward.

**Statement of the Problem**

The problems slowing down the successful completion of housing projects are wide-ranging and complicated. These challenges come from various factors that can slow down the progress of these projects (Muthoni & Obuba, 2023). One major problem is frequent delays, which can happen at different stages, such as during construction or when securing necessary permits. Common causes of these delays include complications related to permits, adverse weather conditions, shortages of skilled labor, logistical challenges, and unforeseen technological issues.

In addition to delays, budget overruns represent a critical challenge within housing projects (Odhiambo, Wakibia & Sakwa, 2020). Cost overruns occur when projects spend more than initially planned, causing financial difficulties and interruptions. These overruns can result from unexpected costs, changes in the project's design, increases in material prices due to inflation or market shifts, and other financial issues that may come up during the project. Addressing these challenges is essential for enhancing the efficiency and success of housing initiatives.

Maintaining good construction quality in housing projects is important, but there are many challenges that can affect this and harm the final outcome. Effective supervision, skilled workers, and the use of quality materials are key (Ahmed & Arocho, 2021). If there is poor supervision, low-quality work, or cheap materials, the project's quality can suffer, leading to disappointment among residents and others involved. Another major issue is dealing with regulations and permits (Mbati, 2019). Housing projects must follow local rules and building standards. Delays in getting the right permits or handling these rules can seriously slow down the project.

Changes in the project plan can make housing projects more difficult. These changes often come from updated design needs or client requests. If not handled well, these adjustments can mess up schedules and budgets, making it harder to complete the project successfully (Mutheu & Perris, 2021). Good communication between everyone involved—like developers, builders, architects, and residents—is important to avoid confusion, arguments, and delays (Mutheu & Perris, 2021). Additionally, following environmental guidelines, using sustainable practices, and reducing harm to the environment can be tough and may affect both timelines and costs.

There are instances of project abandonment and subsequent auctions, exemplified by the sale of 25 apartment buildings due to excessive construction costs, including properties like the Maisonette near Mirema Drive in Roysambu and four similar four-story complexes in Migaa (Kamande et al. 2023). Notable failures in commercial housing projects include the collapse of a five-story building in Kinoo, Kiambu County, on March 6, 2022, and the collapse of two additional six-story buildings in November

2022, which resulted in fatalities (Kimaru, 2021). Such incidents have become increasingly common in Kenya, leading to delays, diminished project scopes, and outcomes that fail to meet budgetary constraints. This situation has sparked widespread public dissatisfaction, resulting in criticism aimed at builders, government officials, and project managers (Githaiga & Bing, 2019).

Despite the existence of comprehensive laws and regulations governing commercial housing projects, many still grapple with issues related to poor quality, limited scope, prolonged timelines, and budget overruns (Ogunjobi, 2023). These challenges are often exacerbated in informal settlements, where inspections by the Kiambu County Inspectorate are infrequent, and issues such as misappropriation of funds, bribery, contractor registration problems, and irregular project allocations are common. Moreover, limited research has been conducted on the impact of resource allocation on the failures of commercial housing projects, as noted by Yahaya, A. G. (2021). This study filled this gap by investigating the effects of resource allocation on the performance of commercial housing projects in Kiambu County, Kenya.

**Research Objectives**

This study examined the effect of resource allocation on the performance of housing construction projects in Kiambu County

## LITERATURE REVIEW

**Resource Based View Theory**

The Resource-Based View (RBV) theory, first articulated by Barney in 1991, posits that a firm's resources are fundamental to its performance and competitive advantage. It distinguishes between tangible resources, such as equipment and facilities, which support operational processes, and intangible resources, such as brand reputation and intellectual property, which enable the creation of distinctive business strategies (Dabirian et al., 2022).

One key argument of the RBV is that tangible resources are not easily transferable between firms without incurring costs and are often unevenly distributed. This unevenness creates opportunities for companies to develop competitive advantages by implementing strategies that significantly differ from those of their competitors (Haider & Kayani, 2020). Intangible resources, characterized by their scarcity and unpredictability, are essential for sustaining a competitive edge, as they are often unique and difficult for rivals to imitate.

In project management, tangible resources can include readily available templates, tools, and proprietary methods (Durdyev, 2021). In contrast, intangible assets like effective leadership and teamwork enhance an organization's competitive position. These intangible factors are critical, scarce, and challenging to replicate, making them vital to achieving successful project outcomes (Galaz-Delgado et al., 2021).

Despite its applicability, the RBV has faced critiques regarding its terminology in project management, particularly terms like resources, capabilities, and competencies. Furthermore, it is often criticized for its lack of verifiability, largely due to the difficulties in accurately measuring intangible assets.

The RBV is especially relevant for examining resource management in housing construction projects, as it underscores the importance of human resources as vital, unique assets crucial for project success. The theory argues that to achieve project objectives and sustain a competitive advantage, organizations must systematically manage these resources in alignment with the RBV framework (Singla, Shrivas & Sharma, 2022). This perspective emphasizes that effective planning, acquisition, and motivation of human resources can significantly impact the success of housing projects, ensuring they meet the expectations of stakeholders.

**Empirical Review**

The investigation into the relationship between resource allocation strategies and project success

highlights significant gaps in our understanding of research methodologies, theoretical frameworks, and the influence of contextual factors. Rasool et al. (2019) contribute important insights regarding the connection between human resource management (HRM) and long-term organizational success, emphasizing the mediating role that workplace innovation plays. However, their analysis notably fails to address how different resource allocation approaches impact project outcomes. This oversight indicates a pressing need for further exploration into the direct correlation between resource allocation tactics and project performance metrics.

Rasool et al.'s study predominantly focuses on the banking sector in China, which raises concerns about the applicability of their findings to other industries or geographic regions. The cultural and environmental factors that can influence the relationship between HRM practices and organizational success are not sufficiently explored in their work. Understanding these contextual variables is crucial, as they significantly shape how organizations allocate resources and achieve project effectiveness. Future research should delve deeper into these aspects to develop a more nuanced understanding of how varying contexts affect resource allocation strategies and project outcomes.

The authors employed a questionnaire along with the PLS-SEM technique to investigate the influence of HRM interventions on long-term performance. While this methodological approach offers valuable data, it is limited by potential social desirability bias, which can skew results (Nasri et al., 2022). To gain a more comprehensive perspective on the relationship between project success and resource allocation, employing mixed-method research that combines quantitative analysis with qualitative techniques—such as focus groups or interviews—could provide richer insights.

This study aims to examine how different resource allocation strategies influence project performance specifically within the residential construction sector. To achieve this, data was systematically gathered from a diverse range of stakeholders, including contractors, workers, and project managers. Furthermore, the study considers the cultural and environmental backgrounds of participants, acknowledging that these contextual factors may significantly influence decisions regarding resource allocation and project results. By addressing these aspects, this research seeks to fill a notable gap in the existing literature, shedding light on how effective resource allocation practices can enhance project performance while also addressing theoretical, contextual, and methodological shortcomings.

While existing literature extensively covers the processes of resource allocation and project execution, Anwar and Abdullah (2021) focus primarily on the impact of HRM strategies on the operational efficiency of government agencies. However, their research does not provide an explicit examination of the conceptual frameworks surrounding resource allocation mechanisms and their implications for project performance. This lack of a robust conceptual framework limits the depth of their analysis and understanding of how resource allocation impacts project outcomes.

Moreover, since Anwar and Abdullah (2021) concentrated exclusively on government institutions, the broader applicability of their findings remains uncertain. Their study fails to consider contextual elements that may influence resource allocation strategies and project performance across different environments. By adopting a quantitative framework, the researchers intentionally excluded qualitative approaches, such as interviews and focus groups, which could yield deeper insights. Additionally, their analysis does not sufficiently explore specific factors that might affect the relationship between HRM practices and the achievement of organizational success.

To address these identified gaps, this research seeks to investigate the effects of various resource allocation strategies on construction project

outcomes. The mixed-method study involved surveying key stakeholder groups, including project managers, contractors, and employees, to gather comprehensive data. A detailed framework was developed to explore how different approaches to resource allocation affect project success. The findings of this research are expected to illuminate gaps in our understanding of relevant theories, contexts, and methodologies, while also identifying opportunities to improve project performance through more efficient resource utilization.

Ultimately, while the study by Anwar and Abdullah (2021) offers valuable perspectives on HRM practices and organizational success, it provides a limited view of the relationship between these elements. This forthcoming research aims to fill knowledge gaps by specifically examining how varying resource allocation strategies impact the success of construction projects.

In addition to the above discussions, Nasri et al. (2022) investigate the Special Allocation Fund (SAF) utilized by Rokan Hilir Regency's Regional Development Planning Agency. Their research focuses on how budget performance data and collaborative planning can enhance the management of these funds, emphasizing the operational phase. This study is significant as it reveals practical methods for improving project performance through effective use of budget performance analytics and collaborative approaches.

Kabirifar and Mojtahedi (2019) explore the impact of Engineering, Procurement, and Construction (EPC) phases on the success of large-scale residential construction projects. Their findings underscore the importance of systematic project planning and the structured implementation of EPC phases as critical factors in ensuring project success.

Similarly, Dabirian et al. (2022) present a dynamic model aimed at optimizing human resource allocation in construction projects. Their analysis highlights the importance of careful resource distribution, which serves as a determinant of project success and offers crucial insights into how effective human resource allocation can enhance overall project performance.

Muute and James (2019) investigate how different project planning methodologies influence the performance of construction projects in Nairobi City County, Kenya. Their research identifies key factors that contribute to successful project outcomes, emphasizing the necessity of tailored planning techniques.

Mutheu and Perris (2021) examine the role of technical expertise in the monitoring and evaluation of residential construction projects in Kajiado County, Kenya. They assess how the involvement of technical experts can enhance project performance, highlighting the importance of integrating engineering knowledge into construction practices to improve industry outcomes. Through this comprehensive review, it becomes evident that understanding the multifaceted relationship between resource allocation, HRM practices, and project success is crucial for advancing knowledge in this area and improving practices in the construction sector.

**Conceptual Framework**

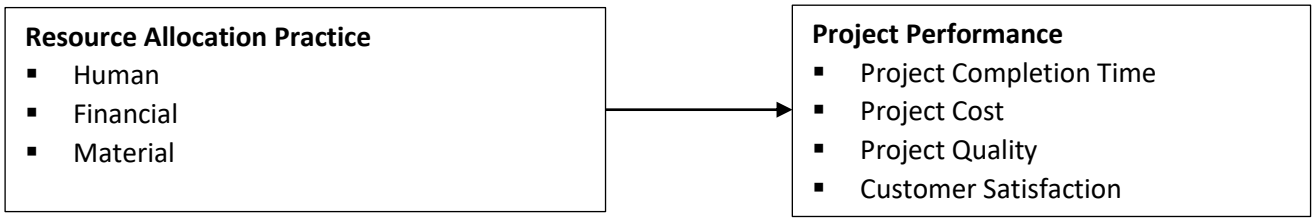


**Figure 1: Conceptual Framework**

## METHODOLOGY

The study adopted a descriptive cross-sectional survey design. The study analyzed 120 completed housing construction projects in Kiambu County, Kenya, carried out between 2019 and 2022 across 12 sub-counties: Githunguri, Kiambu Town, Kiambaa, Juja, Limuru, Kabete, Lari, Gatundu North, Gatundu South, Kikuyu, Thika Town, and Ruiru. The target population included key professionals directly involved in these projects, such as architects, engineers, contractors, and sub-contractors, whose expertise was crucial in assessing how resource management practices influenced the performance of these housing projects. A total of twelve sub-counties located within Kiambu County in Kenya were considered for the research.

The proportionate stratified random sampling method was utilized in this study to ensure that the diverse target population across the 12 sub-counties in Kiambu County, Kenya, was accurately represented. The study employed a combination of qualitative and quantitative methods to analyze data, ensuring a comprehensive examination of the research variables. A Likert scale was applied to transform qualitative data into measurable, numerical values. Descriptive analysis was employed to clarify and summarize the characteristics of the collected sample data. This approach involved calculating and presenting key statistical measures such as the mean, median, mode, standard deviation, and frequency distributions. These statistics provided an in-depth examination of the respondents' answers, highlighting significant trends and variations within the dataset. By utilizing descriptive statistics, the study enhanced the understanding of respondents' views and attitudes regarding the research variables. On the other hand, inferential statistics were applied to draw broader conclusions about the overall population based on the sample data. This method included techniques like hypothesis testing and estimating population parameters, enabling the researchers to make confident generalizations about the population. While descriptive statistics focused on insights from the sample, inferential statistics allowed for the extension of these insights to a wider context, thereby validating and generalizing the findings beyond the immediate sample.

## FINDINGS AND DISCUSSION

### Response Rate

The investigation was targeted at 92 individuals, including architects, designers, engineers, contractors, and subcontractors. In spite of this, 80 (87%) of the respondents responded as displayed in Table 1.

**Table 1: Response Rate**

| Level of Position | Frequency | Valid Percent (%) |
|---|---|---|
| Architects | 10 | 12.50 |
| Designers | 10 | 12.50 |
| Engineers | 15 | 18.75 |
| Contractors | 20 | 25.00 |
| Sub-contractors | 25 | 31.25 |
| **Total** | **80** | **100.00** |

**Source: Survey Data (2024)**

Percentages of respondents working as subcontractors (31.25%), contractors (25%), engineers (18.75%), designers (12.5%), and architects (12.5%) are shown in Table 1. Data processing and reliable inferences and conclusions are made possible with a response rate nearing 50%.

**Resource Allocation**

This study investigated how resource allocation influences housing construction project performance, with participants assessing human, financial, and material resources, analysed via means and standard deviations in Table 2.

**Table 2: Descriptive Statistics for Resource Allocation**

| Description | n | Mean | Standard Deviation |
|---|---|---|---|
| You have adequate financial resource allocation for construction projects. | 80 | 3.302 | 0.706 |
| Adequate human resources are available for your construction projects. | 80 | 3.227 | 0.684 |
| Building and construction projects have adequate materials. | 80 | 3.421 | 0.589 |
| Effective resource allocation positively impacts the performance of housing construction projects. | 80 | 3.109 | 0.605 |
| You frequently review and adjust resources allocated to optimize performance. | 80 | 3.172 | 0.662 |
| The allocation of resources is well-planned in housing construction projects in this county. | 80 | 3.004 | 0.047 |
| Proper resource allocation leads to improved project quality in this county. | 80 | 3.115 | 0.231 |
| Resource allocation affects the overall cost of housing construction projects in this county. | 80 | 3.465 | 0.283 |
| **Aggregate Mean Scores** | | **3.227** | **0.476** |

**Source: Survey data (2024)**

Table 2 indicates that all indicators of resource allocation were rated as moderate on a five-point Likert scale, revealing a range of mean scores among participants. The highest-rated category was "resource allocation on the total cost of projects," with a mean score of 3.465, reflecting a generally positive sentiment. Conversely, "planning of resource distribution" received the lowest rating, averaging 3.004. The standard deviations highlighted response variability; for example, "resource allocation and improvement of project quality" had a low standard deviation of 0.231, indicating consensus among respondents. In contrast, the "adequacy of financial resources" exhibited greater variability with a standard deviation of 0.706. Overall, home development initiatives in Kiambu County were perceived positively, with an average score of 3.227 and a standard deviation of 0.476, suggesting a consistent, though mild, impact on resource allocation in the region's housing projects.

**Project Performance**

Research in Kiambu County assessed newly constructed dwellings, focusing on completion time, cost, quality, and client satisfaction. Results are detailed in Table 3.

**Table 3: Descriptive Statistics for Project Performance**

| Description | n | Mean | Standard Deviation |
|---|---|---|---|
| Proper planning and execution of project procurement phases to ensure project success. | 80 | 3.029 | 1.112 |
| The engagement of technical experts promotes project performance. | 80 | 3.175 | 0.998 |
| Accuracy of resource estimation positively correlates with project performance. | 80 | 3.106 | 0.884 |
| Effective communication and collaboration help to avoid misunderstandings, ensure alignment regarding project goals, and support timely decisions. | 80 | 3.011 | 1.084 |
| Project management practices such as stakeholder involvement, effective communication, and efficient resource management play a crucial role in the success of the project. | 80 | 3.294 | 0.921 |
| Lack of resource monitoring results in wastage and inefficiencies. | 80 | 3.453 | 0.991 |
| Effective resource control contributes to on-time project delivery. | 80 | 3.027 | 1.236 |
| Inadequate resource estimation causes disruptions in project execution. | 80 | 3.461 | 0.652 |
| **Aggregate Mean Scores** | | **3.195** | **0.985** |

**Source: Survey data (2024)**

Inadequate resource estimation causing delays in project execution was the topic that participants found most interesting, with a mean score of 3.461 and a standard deviation of 0.652 (Table 3). In contrast, there was a standard deviation of 1.084 and a mean score of 3.011 for productive dialogue and teamwork. Project management methods contribute to project success, as shown by the average score of 3.195 and standard deviation of 0.985. Respondents obviously believe that project management practices significantly affect project performance, as indicated by an aggregate probability so close to 1 (indicating a high degree of confidence in the event's occurrence) (0.985). The aggregate standard deviation is 0.985, which is within the acceptable range of +/-2 from the mean, indicating that there is minimal variety in replies and a widespread agreement among respondents that project management approaches may increase the success of their projects.

**Qualitative Analysis**

The survey's open-ended questions yielded valuable qualitative insights into the operational Participants discussed resource management strategies in home building projects within Kiambu County, emphasizing the critical role of effective resource allocation in achieving project objectives. In relation to Research objective, which focused on the impact of resource allocation on performance, they highlighted that the proper distribution of personnel, materials, and financial resources is vital for meeting project goals. A sufficient workforce is necessary for timely project completion, while shortages can lead to delays and reduced quality. Effective resource allocation relies on comprehensive project planning, a clear understanding of project needs, and continuous monitoring. Respondents noted that limited financial resources and material shortages could

significantly hinder project development and outcomes.

## CONCLUSIONS AND RECOMMENDATIONS

The study found that effective resource allocation significantly enhances the performance of housing construction projects in Kiambu County. Projects with well-allocated resources, including materials, labor, and finances, demonstrated improved efficiency and success rates. Specifically, projects that effectively managed their resource distribution experienced fewer delays, stayed closer to budget, and achieved higher quality outcomes. The research highlights that strategic allocation of resources is crucial for meeting project deadlines and maintaining the overall quality of construction.

The research findings indicate that the implementation of resource management strategies has a crucial role in shaping the outcomes of housing development projects in Kiambu County, Kenya. Within these methods, the allocation of resources was recognized as the most significant factor influencing project results. Strategic distribution of resources, including financial, human, and material resources, is essential in determining the success of building projects. The study emphasized the need of careful monitoring and supervision of these resources to guarantee that building operations conform to defined frameworks. This entails the active engagement of stakeholders, sufficient training for staff, and the strategic maximization of resources and financing.

To improve the performance of housing construction projects in Kiambu County, it is essential to optimize resource allocation strategies. Project managers should adopt a systematic approach to allocating resources, ensuring that they align with project requirements and timelines. This includes conducting thorough needs assessments and utilizing resource management tools to track and allocate resources efficiently. Policymakers and stakeholders should invest in training programs for project managers to enhance their skills in resource planning and allocation. Additionally, adopting best practices from successful projects and incorporating feedback mechanisms can help refine resource allocation processes and contribute to better project outcomes.

### Suggestions for Further Study

While this study provides valuable insights into resource management practices and their impact on the performance of housing construction projects in Kiambu County, Kenya, several areas warrant further investigation. Future research should consider expanding the scope to include additional dimensions of resource management practices that were not covered in this study. For example, examining the role of technology adoption in resource management, the impact of environmental sustainability practices, and the integration of advanced project management methodologies could provide a more comprehensive understanding of factors influencing project performance.

Additionally, future studies should explore resource management practices in other regions beyond Kiambu County to identify regional differences and commonalities. Comparative studies across different counties or countries can offer insights into how contextual factors influence resource management and project outcomes. This broader perspective could help in developing generalized strategies and best practices that are applicable in diverse settings. By extending the research to include a variety of locations and contexts, scholars can contribute to a more nuanced understanding of resource management practices and their effectiveness in different environments.

## REFERENCES

Abbas, M., & Ali, R. (2021). Transformational versus transactional leadership styles and project success: A meta-analytic review. *European Management Journal*.

Aghania, V., Ramzani, S., & Raju, V. (2019). The impact of communication through collaboration on building project performance in Indonesia. *International Journal of Mechanical Engineering and Technology*, *10*(3).

Ahmed, S., & Arocho, I. (2021). Analysis of cost comparison and effects of change orders during construction: Study of a mass timber and a concrete building project. *Journal of Building Engineering*, *33*, 101856.

Ali, Y. A. (2019). *Influence of stakeholders' role on the performance of national government constituency development fund projects in Wajir West constituency, Kenya*. Dissertation, University of Nairobi. UoN, Kenya.

Anwar, G., & Abdullah, N. N. (2021). The impact of Human resource management practice on Organizational performance. *International Journal of Engineering, Business and Management (IJEBM)*, *5*.

Asenahabi, B. M. (2019). Basics of research design: A guide to selecting appropriate research design. *International Journal of Contemporary Applied Researches*, *6*(5), 76-89.

Assaad, R., El-Adaway, I. H., & Abotaleb, I. S. (2020). Predicting project performance in the construction industry. *Journal of Construction Engineering and Management*, *146*(5), 04020030.

Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods*. Oxford: Oxford University Press.

Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association*, *22*(2), 27-30.

Chan, A. P. C., & Adabre, M. A. (2019). Bridging the gap between sustainable housing and affordable housing: The required critical success criteria (CSC). *Building and Environment*. https://doi.org/10.1016/j.buildenv.2019.01.029

Chege, S. W., & Bett, S. (2019). Total Quality Management Practices and Performance of Organizations in the Real Estate Industry, Case of Property Developers in Nairobi City County, Kenya. *International Journal of Current Aspects*. https://doi.org/10.35942/ijcab.v3iiv.44

County Government of Kiambu: *County Integrated Development Plan* 2018-2022.

Dabirian, S., Abbaspour, S., Khanzadi, M., & Ahmadi, M. (2022). Dynamic modelling of human resource allocation in construction projects. *International Journal of Construction Management*, *22*(2),182-191.

Durdyev, S. (2021). Review of construction journals on causes of project cost overruns. *Engineering, Construction and Architectural Management*, *28*(4), 1241-1260.

Dźwigoł, H. (2019). Research methods and techniques in new management trends: research results. *Virtual Economics*, *2*(1), 31-48.

Elia, G., Margherita, A., & Secundo, G. (2021). Project management canvas: a systems thinking framework to address project complexity. *International Journal of Managing Projects in Business*, *14*(4), 809-835.

Galaz-Delgado, E. I., Herrera, R. F., Atencio, E., Rivera, M. L., & Biotto, C. N. (2021). Problems and challenges in the interactions of design teams of construction projects: A bibliometric study. *Buildings*, *11*(10), 461.

Githaiga, N. M., & Bing, W. (2019). Belt and road initiative in Africa: The impact of standard gauge railway in Kenya. *China Report*, *55*(3), 219-240.

Haider, S. A., & Kayani, U. N. (2020). The impact of customer knowledge management capability on project performance-mediating role of strategic agility. *Journal of Knowledge Management*, *25*(2), 298-312.

Harris, D. E., Holyfield, L., Jones, L., Ellis, R., Neal, J., Harris, D. E., & Neal, J. (2019). Research methods. *Spiritually and developmentally mature leadership: Towards an expanded understanding of leadership in the 21st century*, 57-65.

https://www.kiambu.go.ke/departments/images/YASC/CIDP_2018_2022.pdf

Jitpaiboon, T., Smith, S. M., & Gu, Q. (2019). Critical success factors affecting project performance: An analysis of tools, practices, and managerial support. *Project Management Journal*, *50*(3), 271-287.

Kabirifar, K., & Mojtahedi, M. (2019). The impact of engineering, procurement and construction (EPC) phases on project performance: A case of large-scale residential construction project. *Buildings*, *9*(1), 15.

Kissi, E., Agyekum, K., Baiden, B. K., Tannor, R. A., Asamoah, G. E., & Andam, E. T. (2019). Impact of project monitoring and evaluation practices on construction project success criteria in Ghana. *Built Environment Project and Asset Management*.

Lê, J. K., & Schmid, T. (2022). The practice of innovating research methods. *Organizational Research Methods*, *25*(2), 308-336.

Mbati, D. W. (2019). *The Effect of Human Resource Management Practices on Masonry Labour Productivity in the Kenyan Construction Industry*. Dissertation, University of Nairobi.

Mokua, C., & Kimutai, G. (2019). Monitoring and Evaluation Systems and Performance of Public Private Partnership Projects in Nairobi City County, Kenya. *International Journal of Current Aspects*, *3*, 124-148.

Mutheu, M. C., & Perris, C. W. (2021). Effect of Technical Expertise Engagement in Monitoring and Evaluation on Performance of Residential Construction Projects in Kajiado County. *International Journal of Business Management, Entrepreneurship and Innovation*, 3(3), 72-81. https://doi.org/10.35942/jbmed.v3i3.217

Muute, N. C., & James, R. (2019). Project planning practices and performance of construction projects in Nairobi City County, Kenya. *Masters Dissertation, Kenyatta University, Kenya*.

Nasri, H., Nurman, N., Azwirman, A., Zainal, Z., & Riauan, I. (2022). Implementation of collaboration planning and budget performance information for special allocation fund in budget planning in the regional development planning agency of Rokan Hilir regency. *International Journal of Health Sciences (IJHS) Ecuador*, *6*(S4), 639-651.

Odhiambo, J. O., Wakibia, J., & Sakwa, M. M. (2020). Effects of monitoring and evaluation planning on implementation of poverty alleviation mariculture projects in the coast of Kenya. *Marine Policy*, *119*, 104050.

PMI (2021). *Pulse of the Profession: Beyond Agility.*

PMI. (2017). *A Guide to the PROJECT MANAGEMENT of BODY OF KNOWLEDGE*. In Project Management Institute. https://doi.org/10.1002/pmj.21345

Pritchard, C. L., & Pritchard, C. L. (2019). *Work Breakdown Structure*. In The Project Management Drill Book. https://doi.org/10.4324/9780203741764-14

Project Management Institute. (2017). *The Standard for Program Management*. In PMI.

Project Management Office (PMO) Report (2022). *The State of the Project Management Office (PMO) 2022.*

Rasool, S. F., Samma, M., Wang, M., Zhao, Y., & Zhang, Y. (2019). How human resource management practices translate into sustainable organizational performance: The mediating role of product, process and knowledge innovation. *Psychology Research and Behaviour Management*, 1009-1025.

Santoso, D. S., & Gallage, P. G. M. P. (2020). Critical factors affecting the performance of large construction projects in developing countries: A case study of Sri Lanka. *Journal of Engineering, Design and Technology*, *18*(3), 531-556.

Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, *34*(1), 8-12.

Sileyew, K. J. (2019). *Research design and methodology* (pp. 1-12). Rijeka: IntechOpen.

Singla, H. K., Shrivas, A., & Sharma, A. (2022). Identification of knowledge assets in construction projects and their impact on project performance. *Journal of Intellectual Capital*, *23*(3), 558-587.

Standardmedia (Jan, 2023). *State caught napping as buildings tumble*.

Standish Chaos Report (2021). *Project Success Rate.*

Swart, K., Bond-Barnard, T., & Chugh, R. (2022). Challenges and critical success factors of digital communication, collaboration and knowledge sharing in project management virtual teams: A review. *International Journal of Information Systems and Project Management*, *10*(4), 84-103.

Tengan, C., & Aigbavboa, C. (2021). Validating factors influencing monitoring and evaluation in the Ghanaian construction industry: A Delphi study approach. *International Journal of Construction Management*, *21*(3), 223-234.

Thaddee, B., Prudence, N., & Valens, S. (2020). Influence of project management practices on project success in Rwanda-the case of Girinka project in Runda sector, Kamonyi district, Rwanda. *European Journal of Management and Marketing Studies*, *5*(3).

Unterhitzenberger, C., & Bryde, D. J. (2019). Organizational justice, project performance, and the mediating effects of key success factors. *Project Management Journal*, *50*(1), 57-70.

Williams, H. (2021). The meaning of" phenomenology": Qualitative and philosophical phenomenological research methods. *The Qualitative Report*, *26*(2), 366-385.

Yang, Y., Kuria, G. N., & Gu, D. X. (2020). Mediating role of trust between leader communication style and subordinate's work outcomes in project teams. *Engineering Management Journal*, *32*(3), 152-165.

Zhao, J., Seppänen, O., Peltokorpi, A., Badihi, B., & Olivieri, H. (2019). Real-time resource tracking for analyzing value-adding time in construction. *Automation in Construction*, *104*, 52-65.