

## STRATEGY IMPLEMENTATION DRIVERS AND PERFORMANCE OF CONSTRUCTION FIRMS IN NAIROBI CITY COUNTY, KENYA

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### ABSTRACT

Construction firms in Kenya continue to experience performance challenges arising from inefficient resource utilization, weak organizational systems, and strategic implementation gaps, which undermine profitability, revenue growth, and stakeholder satisfaction despite the sector's significant contribution to the economy. This study examined the influence of strategic implementation drivers on the performance of construction firms in Nairobi City County, Kenya, with specific focus on resource allocation and organizational culture. The study was anchored on the Resource-Based View Theory and Contingency Theory. A descriptive research design was adopted. The study targeted 136 respondents, comprising project managers, project engineers from 66 registered construction firms, and four managers from the National Construction Authority. Given the relatively small population, a census approach was employed. Primary data were collected using a structured questionnaire that was piloted to establish validity and reliability. Data were analyzed using both descriptive and inferential statistics with the aid of SPSS. Of the 136 questionnaires administered, 129 were returned fully completed, representing a response rate of 94.85%, which was considered adequate for statistical analysis and generalization of the findings. The findings revealed that resource allocation and organizational culture had a positive and statistically significant influence on the performance of construction firms in Nairobi City County, Kenya. The study concluded that effective allocation of financial, technological, and human resources, together with a supportive organizational culture characterized by strong leadership, collaboration, innovation, and ethical practices, are critical strategic implementation drivers for enhancing construction firm performance. The study recommends that construction firms prioritize strategic investment in critical organizational resources while strengthening organizational cultures that promote employee commitment, teamwork, innovation, and accountability. These measures are expected to improve project delivery, operational efficiency, profitability, revenue growth, and overall organizational performance within Kenya's construction industry.

**Keywords:** Resource allocation, organizational culture, strategic implementation, firm performance, construction firms, Nairobi City County, Kenya.

## INTRODUCTION

The construction industry continues to face unprecedented performance related challenges in the post-pandemic era, with organizational performance becoming increasingly critical for survival and competitiveness in volatile markets. While some developed economies demonstrated resilience, African markets exemplify the diverse recovery patterns across developing nations (Chin et al. 2022).

In South Africa, the construction industry lost 259,118 jobs at the end of Q3 2020 and contributed R111 billion (US\$7.1 billion) to GDP in 2021, with the government implementing a R340 billion infrastructure recovery plan. Nigeria's construction market, valued at approximately US\$50 billion, experienced a 7.7% decline in 2020 but recovered with 3.1% growth in 2021, supported by the National Development Plan 2021-2025 with planned capital expenditure of ₦49.7 trillion (US\$119.7 billion). Ghana's construction industry, accounting for 7.2% of GDP with an estimated market size of US\$9-13.2 billion, grew 5.9% in 2021 despite facing currency depreciation and material cost challenges. Kenya's construction sector demonstrated mixed performance, growing 6.6% in 2021 compared to 10.1% in 2020, with cement consumption rising 23% to 9.1 million tonnes (Chin et al. 2022).

However, despite these recovery indicators, construction firms globally continue to grapple with fundamental performance challenges, with post-tax return on invested capital of construction companies decreasing by 0.5 percentage points globally between 2008 and 2023, highlighting the pressing need to understand the internal drivers of organizational performance in construction firms.

Strategic implementation has emerged as a fundamental determinant of construction firm performance, with contemporary research emphasizing the critical role of specific implementation drivers in achieving superior organizational outcomes. Singh et al. (2024) emphasize that in the existing dynamic marketplace, supply chain disruptions have become a common phenomenon, with the emergence of new technologies coupled with variable customer demand creating unprecedented challenges for construction organizations. Key strategic implementation drivers that have gained prominence include resource allocation, which ensures optimal deployment of increasingly scarce human and financial capital; and organizational culture, which shapes employee behavior and organizational capabilities (Singh et al. 2024).

Recent meta-analysis by Solanki and Baroda (2024) covering 115 papers from 1994-2023 reveals that the field of perceived organizational performance has evolved as an interdisciplinary domain, and in reference to construction firms, strategic implementation drivers collectively determine how effectively construction firms can translate strategic intent into measurable performance outcomes in an increasingly complex and competitive construction business environment.

### Statement of the Problem

The construction industry continues to face significant performance challenges globally, with particularly alarming trends evident in developing economies where strategic implementation failures have become increasingly pronounced. Contemporary research indicates that despite the sector's critical contribution to economic development, construction firms worldwide struggle with declining organizational performance metrics, attributed primarily to inadequate strategic implementation mechanisms (Singh et al., 2024). This performance crisis is manifested through persistent project delays, cost overruns, quality deficiencies, and reduced profitability, which collectively undermine the industry's capacity to deliver sustainable value to stakeholders (Al-Nimer et al., 2024). The root causes of these performance deficits extend beyond operational inefficiencies to encompass fundamental strategic implementation challenges, particularly in the

areas of resource allocation and organizational culture (Nkanata & Mungara, 2024). These strategic implementation drivers, while recognized as critical determinants of organizational success across various industries, remain inadequately synchronized within the construction sector context, creating a substantial knowledge gap that demands urgent empirical investigation.

The Kenyan construction sector exemplifies these global performance challenges, with recent statistical evidence revealing a volatile and sustained decline. According to the Kenya National Bureau of Statistics (2025), the sector experienced a contraction of 0.7% in 2024 and continued to face significant headwinds, contracting further by 2.0% in the third quarter of 2024 alone. This represents a stark reversal from the double-digit growth rates seen a decade ago. In Nairobi County specifically, the crisis is underscored by a dramatic fall in the value of approved building plans, which plunged from over KSh 200 billion in early 2024 to approximately KSh 50 billion by Q1 2025 (Cytonn Research, 2025). Furthermore, construction costs in the Nairobi Metropolitan Area rose to an average of KSh 73,400 per square meter in 2025, a 3.1% increase that has further squeezed firm profitability and project viability (Cytonn Research, 2025). These alarming statistics highlight the urgent need for empirical research to identify and validate strategic implementation drivers that can reverse this performance decline.

Despite these pressing issues, the existing body of literature is characterized by several critical gaps. Contextually, most recent studies focus on macro-economic factors or large-scale public infrastructure projects at the national level (Liu et al., 2023), leaving a localized gap regarding how private firms in Nairobi navigate urban constraints like land-use tightening and surging input costs through internal strategic implementation. Methodologically, previous researches, such as Kuria and Kimutai (2018), largely relied on descriptive designs, resulting in a lack of rigorous inferential analysis that ranks the relative influence of "soft" drivers versus "hard" drivers in the post-pandemic economic landscape. This is further compounded by an empirical gap where, although individual factors like cost leadership or differentiation have been explored (Velani, 2017), there is an inadequacy of inclusive studies examining the combined interaction of communication, structure, resources, and culture as a holistic framework for performance in the current 2024–2026 economic cycle.

Furthermore, a significant knowledge gap exists regarding the hierarchy of these drivers; while firms traditionally prioritize communication and resources, recent findings suggest that organizational culture serves as the primary catalyst that determines the efficacy of all other strategic initiatives. Without addressing these gaps, construction firms in Nairobi remain at risk of operational failure, threatening the realization of Kenya's Affordable Housing Agenda and broader economic development goals. By filling these research gaps, this study sought to examine the influence of resource allocation and organizational culture on the performance of construction firms in Nairobi County, Kenya.

### **Objectives of the Study**

The general objective of the study was to establish the influence of strategy implementation drivers on performance of construction firms in Nairobi City County, Kenya. The study was anchored on the following specific objectives;

1. To establish the influence of resource allocation on performance of construction firms in Nairobi City County, Kenya
2. To assess the influence of organizational culture on performance of construction firms in Nairobi City County, Kenya

## LITERATURE REVIEW

### Theoretical Review

#### Resource Based View Theory

The Resource-Based View (RBV) Theory, articulated by Barney (1991), emphasizes that a firm's sustainable competitive advantage and overall performance are derived from its ability to acquire, develop, and effectively deploy valuable, rare, inimitable, and non-substitutable (VRIN) resources. In the construction industry, particularly within the context of Kenya, this theory is highly relevant as it underscores the importance of internal organizational capabilities—such as resource allocation, human capital, and technological assets—in driving strategic outcomes. Construction firms that are able to effectively mobilize their resources in a way that meets the demands of complex and dynamic construction projects are more likely to achieve superior performance, including better project delivery times, higher profitability, and stronger stakeholder relationships (Hartono et al., 2017). As such, the RBV theory provides a valuable framework for understanding how resource allocation decisions directly impact the successful implementation of strategies, leading to improved project execution and enhanced overall firm performance (Kanyora & Okello, 2015).

Furthermore, while the RBV highlights the significance of internal resources, it also faces criticism regarding its limited focus on external factors and the dynamic nature of resource availability. Critics argue that the RBV's emphasis on firm-specific resources can overlook the importance of adapting to changes in the external environment, such as shifts in regulatory policies, market conditions, and technological advancements (Priem & Butler, 2001). In Kenya's construction sector, where projects are often affected by changes in government regulations, land acquisition processes, and economic fluctuations, firms may find that their internal capabilities, no matter how rare or valuable, are not enough to guarantee success. As such, integrating external strategic drivers, such as market positioning and stakeholder relationships, alongside internal resource management, can provide a more holistic understanding of what constitutes sustainable competitive advantage in this context. Despite these criticisms, the RBV remains highly relevant to understanding the mechanisms by which construction firms in Kenya can leverage their internal resources—such as skilled labor, financial assets, and technological expertise—to enhance their ability to deliver high-quality projects, improve profitability, and maintain a competitive edge in an increasingly complex and competitive market.

#### Contingency Theory

The Contingency Theory of Culture, as introduced by Lawrence and Lorsch (1967), emphasizes that there is no one-size-fits-all organizational culture. Instead, the most effective organizational culture is contingent on various situational factors, such as industry dynamics, organizational size, and the external environment. In the construction industry, this theory highlights the importance of adapting the organizational culture to meet the unique demands of the industry and its external context. For construction firms in Nairobi City County, Kenya, an adaptive culture is essential to navigate the complexities of fluctuating government policies, industry regulations, and competitive pressures. Firms operating in this dynamic sector must continuously adjust their cultural values, norms, and practices to remain responsive to these changing conditions (Lawrence & Lorsch, 1967).

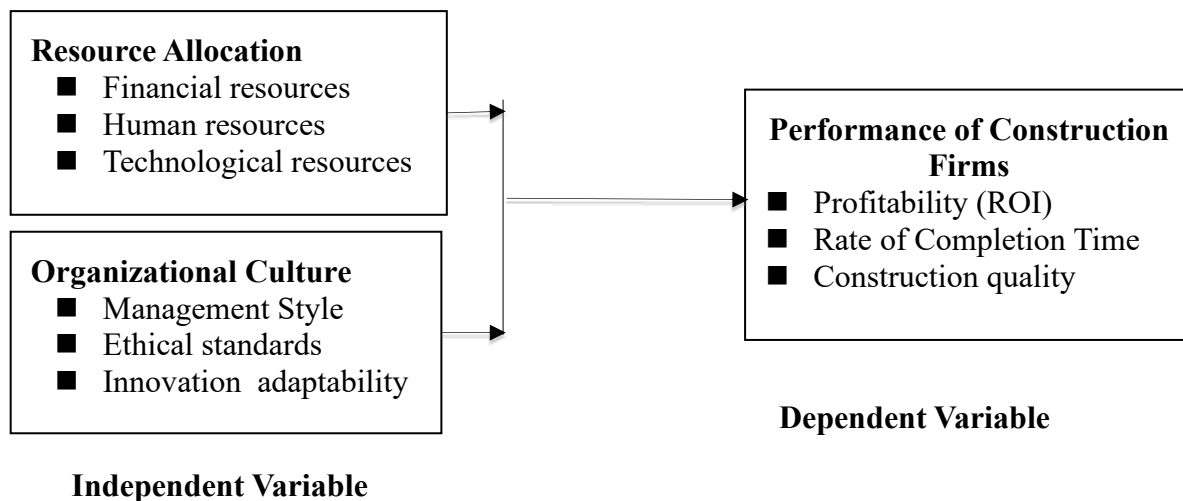
In the context of the Kenyan construction industry, where government policies, client expectations, and technological innovations are constantly evolving, firms must cultivate flexible and performance-driven cultures to remain competitive. Bondinuba et al. (2022) argue that firms that are able to develop cultures of adaptability and innovation are better positioned to manage the

uncertainty and rapid changes that characterize the sector. These adaptive cultures not only enhance organizational efficiency but also improve compliance with regulatory requirements and foster a collaborative environment that promotes continuous improvement. Furthermore, a culture that encourages responsiveness to client needs and expectations can improve client satisfaction, which is crucial for securing repeat business and maintaining a strong market position.

By tailoring their organizational cultures to align with the specific demands of the construction industry in Nairobi, firms can significantly enhance their project delivery outcomes, workforce productivity, and long-term business sustainability. The ability to integrate flexibility, innovation, and compliance into organizational culture enables firms to effectively manage the challenges posed by the external environment, such as regulatory shifts and market competition. As suggested by Bondinuba et al. (2022), a well-aligned culture not only drives performance but also strengthens a firm’s reputation and ability to attract and retain top talent in the highly competitive urban development landscape of Nairobi. Therefore, the Contingency Theory of Culture provides valuable insights into how construction firms can optimize their internal cultural frameworks to navigate external challenges and enhance their overall performance in a rapidly evolving market

### Conceptual Framework

A conceptual framework serves as a visual depiction of the theorized relationships among the variables in a study (Portney, 2020). Conceptualizing variables in academic research is crucial as it provides the foundation for testing hypotheses and deriving generalizations from study findings (Sekaran, 2015). In this study, the independent variables comprise resource allocation, and culture, while the performance of construction firms in Kenya serves as the dependent variable. Figure 2.1 of the conceptual framework further delineates the sub-variables tested within each variable, which represent the measures to be examined.



### Resource allocation

Resource allocation represents a critical strategic implementation driver that encompasses the systematic distribution and deployment of organizational assets to achieve strategic objectives and optimize performance outcomes within construction firms (Awais et al., 2023). As a multidimensional construct, resource allocation involves the strategic decision-making processes that determine how organizations acquire, distribute, and utilize their available resources to support project execution, operational efficiency, and competitive advantage (Quickbase, 2024). The measurement of resource allocation effectiveness in construction contexts requires assessment across three fundamental resource categories: financial, human, and technological resources.

Financial resource allocation involves the strategic distribution of monetary assets, including capital investments, operational budgets, project funding, and contingency reserves, which determines the organization's capacity to undertake projects, manage cash flows, and maintain financial sustainability throughout project lifecycles (Quickbase, 2024). Human resource allocation encompasses the strategic assignment and deployment of personnel based on skills, competencies, experience levels, and availability, ensuring that the right individuals with appropriate expertise are assigned to suitable tasks and projects to maximize productivity and minimize skill mismatches (Awais et al., 2023). Technological resource allocation refers to the strategic acquisition, deployment, and utilization of technological assets, including construction equipment, software systems, digital tools, and information technologies that enhance operational efficiency, improve project coordination, and support innovation capabilities within construction operations (Liang et al., 2022). The effective measurement of these three resource allocation dimensions enables construction firms to optimize their resource utilization strategies, reduce waste, control costs, and enhance overall organizational performance through strategic alignment of resources with project requirements and organizational objectives.

### **Organizational Culture**

Organizational culture, when examined through the dimensions of management style, ethical standards, innovation, and adaptability, represents a comprehensive framework for understanding the foundational set of beliefs shaped by organizational members through external adaptation and internal integration (Schein, 1992). This multidimensional approach to measuring organizational culture encompasses the behavioral, cultural, and strategic elements that significantly influence interpersonal interactions, behaviors, and communication among employees during day-to-day work (Belay et al., 2024). The measurement of these cultural dimensions requires validated instruments that capture both the observable cultural artifacts and the underlying values and assumptions that drive organizational effectiveness and competitive advantage.

Management style as a cultural dimension reflects the underlying values and beliefs about authority, power distribution, and leadership approaches that permeate organizational culture (Digital Leadership, 2024). This dimension encompasses cultural orientations ranging from authoritarian cultures emphasizing hierarchy and control to participative cultures valuing employee empowerment and collaborative decision-making (Groysberg et al., 2018). Research categorizes cultures as either stable, emphasizing authority, order, consistency, predictability, and the status quo, or flexible, characterized by adaptability, openness to change, learning, creativity, and innovation (Belay et al., 2024). Measurement approaches should assess cultural beliefs about decision-making patterns, power distance, involvement levels, and the extent to which the culture supports employee autonomy versus centralized control mechanisms.

Ethical standards within organizational culture encompass the shared values, norms, and beliefs about appropriate moral behavior that constitute the organizational moral structure - a comprehensive framework of interrelated cultural factors that condition, incite, or influence moral behavior of individuals within the organization (Humanistic Management Journal, 2020). This cultural dimension includes internalized normative beliefs that influence behavior, with values and norms related to group beliefs and customs about the importance of particular behaviors, methods of doing work, and ethical reactions to change (Belay et al., 2024). Cultural measurement approaches should assess the extent to which ethical values are embedded into organizational culture, including integrity, corporate citizenship, social responsibility, and ethical orientation in organizational practices. Research demonstrates that organizational cultures emphasizing ethical orientation significantly impact employee behavior and organizational effectiveness through shared moral values and ethical decision-making frameworks.

Innovation as a cultural dimension reflects the shared values, beliefs, and norms that support creativity, experimentation, and the development of new ideas within the organizational culture (Belay et al., 2024). This dimension encompasses cultural values that include innovation, environmental sustainability, outcome orientation, and attention to detail, representing the organization's collective commitment to creative problem-solving and continuous improvement (Taylor & Francis, 2024). Research demonstrates that organizational cultures emphasizing innovation significantly impact organizational performance through cultural dimensions such as teamwork, result orientation, and openness to new ideas. Measurement approaches should assess cultural beliefs about risk-taking, experimentation, learning from failure, and the extent to which the culture supports and rewards innovative behaviors. The cultural innovation dimension can be evaluated using scales that measure innovation capability at the cultural level, including cultural support for creative processes, idea generation, and implementation of novel solutions.

Adaptability as a cultural dimension encompasses the shared beliefs, values, and norms regarding organizational flexibility, change orientation, and responsiveness to environmental demands (Denison, 1995). This cultural dimension reflects the organization's collective capacity to adapt organizational resources, processes, and mindsets in response to external changes, with cultures characterized by adaptability demonstrating openness to change, learning orientation, creativity, and innovation (Groysberg et al., 2018). Research by Denison identifies adaptability as one of four critical cultural traits, examining how cultures that emphasize external focus and flexibility significantly impact organizational effectiveness (Organization Science, 1995). Measurement approaches should assess cultural beliefs about change readiness, learning from experience, environmental responsiveness, and the extent to which the culture supports continuous adaptation. The adaptability dimension can be evaluated through cultural assessment instruments that measure change orientation, learning culture, customer focus, and organizational innovation as interconnected cultural elements that collectively determine the organization's adaptive capacity.

The measurement of organizational culture through these four dimensions requires a comprehensive approach that captures their interrelated nature and combined impact on organizational culture and effectiveness. Studies demonstrate that cultural dimensions including innovation, adaptability, collaboration, and ethical orientation work synergistically to influence organizational performance through shared values, beliefs, and behavioral norms (Belay et al., 2024). Denison's organizational culture model provides a validated framework for measuring these cultural traits, with research showing that cultures emphasizing involvement, consistency, adaptability, and mission significantly impact organizational effectiveness (Denison, 1995). The measurement framework should utilize validated cultural assessment instruments such as the Organizational Culture Inventory (OCI) or Denison Organizational Culture Survey (DOCS) that assess each cultural dimension while recognizing their interdependent relationships and collective contribution to organizational culture strength and performance outcomes.

### **Organizational performance of construction firms**

Organizational performance in construction firms represents a multidimensional construct that encompasses financial effectiveness, operational efficiency, and stakeholder satisfaction measures that collectively determine competitive advantage and long-term sustainability (Buildings, 2024). This comprehensive measurement framework acknowledges the evolution from conventional financial-only metrics to integrated performance measurement systems that capture both financial and non-financial dimensions of construction firm performance. The construction industry faces significant challenges in measuring and assessing performance effectively, with conventional methods becoming less effective and prompting the need to adopt comprehensive performance

measurement approaches that consider the complex nature of construction project delivery (Buildings, 2024).

First, profitability as a performance dimension represents the fundamental financial health indicator measuring construction firms' ability to generate earnings relative to revenues, assets, and equity investments (CFMA, 2024). Recent industry benchmarking data reveals significant improvements in construction profitability metrics, with net income before taxes rising to 6.3% of revenue in 2023, up from 5.0% in 2022, indicating enhanced cost management and operational efficiency across the industry (RedHammer, 2024). Return on Assets (ROA) increased from 9.3% in 2022 to 11.8% in 2023, reflecting better utilization of company assets, while Return on Equity (ROE) rose significantly to 31.4% from 24.3% in 2022, suggesting enhanced value delivery to shareholders (CFMA, 2024). These profitability improvements surpass the pre-2020 five-year average net income before taxes of 4.7%, highlighting the industry's robust financial health and resilience despite economic challenges including inflationary pressures and interest rate fluctuations (RedHammer, 2024).

Secondly revenue volume measurement encompasses both absolute revenue generation and revenue efficiency metrics that demonstrate construction firms' market position and operational productivity (CFMA, 2024). The construction industry demonstrated remarkable resilience in 2023, with companies experiencing a 10.4% year-over-year revenue increase, sustaining growth despite economic pressures including moderated inflation and higher borrowing costs (RedHammer, 2024). Revenue per full-time employee (FTE) increased to \$450,086 in 2023 from \$410,509 in 2022, indicating enhanced productivity and more efficient revenue generation per workforce unit (CFMA, 2024). Industry data shows that construction spending reached approximately \$1.6 trillion in 2021, contributing 4.3% to the entire US GDP, with the global construction market valued at \$8.2 trillion in 2022 and expected to reach \$17 trillion by 2029 with a compound annual growth rate (CAGR) of 7.3% (Upmetrics, 2024; ToolSense, 2024).

Thirdly, customer satisfaction in construction performance measurement encompasses stakeholder satisfaction, relationship performance, and service quality metrics that determine long-term business sustainability and competitive advantage (Buildings, 2024). Research demonstrates that customer satisfaction can significantly enhance corporate performance, with findings indicating a significant positive association of current and lagged customer satisfaction with both profitability and market value in global market settings (Emerald Insight, 2023). Construction performance measurement models incorporate stakeholder satisfaction as a critical dimension, including time performance, product performance, safety performance, business performance, cost performance, design performance, and relationship performance (Buildings, 2024). The measurement framework recognizes that stakeholder performance highlights the acknowledgment of stakeholders' influential role in project outcomes, with understanding and measuring stakeholder performance enabling organizations to enhance collaboration, meet expectations, and ensure overall project success (Buildings, 2024).

Therefore, measurement of construction firm performance through these three dimensions requires a comprehensive approach that integrates financial metrics (profitability and revenue) with non-financial measures (customer satisfaction) to provide a holistic assessment of organizational effectiveness (Buildings, 2024). Industry research emphasizes the importance of considering performance dimensions beyond the traditional project management triangle (cost, time, and quality performance), incorporating stakeholder management, environmental impact, safety performance, technology utilization, and relationship management (Buildings, 2024). The

Construction Financial Management Association (CFMA) 2024 Financial Benchmarker provides industry professionals with validated benchmarks to compare company performance across profitability, financial management, expenses, and sales metrics, based on data from 1,290 construction companies (CFMA, 2024). This integrated framework enables construction firms to assess performance against industry peers while identifying areas for improvement in direct cost control, asset utilization, and operational efficiency that collectively drive superior performance outcomes (RedHammer, 2024).

Recent industry analysis reveals that the top 25% of contractors, labeled as "best in class," consistently outperform in nearly all financial metrics, with companies excelling in controlling direct costs and leveraging assets achieving higher profitability and return on equity (RedHammer, 2024). Construction industry segments show differentiated performance patterns, with Infrastructure & Heavy construction achieving 7.2% net income before taxes, Industrial & Nonresidential companies experiencing 4.1% net income before taxes, and specialized subcontractors comprising the largest segment with varying performance metrics (CFMA, 2024). The industry demonstrates technological advancement with \$50 million invested in architecture, engineering, and construction technology globally between 2020 and 2022, representing an 85% increase over the previous three years, supporting enhanced performance measurement capabilities (Upmetrics, 2024). Performance measurement practices continue evolving with increasing focus on non-financial KPIs including stakeholder management, environmental impact, safety performance, and technology utilization, reflecting the industry's movement toward comprehensive performance assessment frameworks (Buildings, 2024). In this study performance of construction firms was measured in terms of ROI, completion time and construction quality.

## **Empirical Review**

### **Resource Allocation and Organizational Performance**

A study by Mwangi et al. (2023) explored the impact of resource allocation on organizational performance in the Kenyan construction industry. The objective of the study was to examine how the effective distribution of resources influences project outcomes and overall firm performance. The researchers employed a mixed-methods approach, combining surveys with quantitative analysis of financial and operational performance metrics from construction firms. The findings revealed a positive correlation between efficient resource allocation and improved project delivery times, enhanced profitability, and greater client satisfaction, particularly when resources were allocated in alignment with project priorities.

Similarly, in 2022, Ochieng and Wanyoike conducted a study aimed at understanding the role of resource allocation in the success of infrastructure projects in Nairobi. Using a qualitative methodology, including interviews and case studies, the authors found that firms with a structured approach to resource distribution, involving regular assessment and realignment of resources, achieved higher levels of performance. The study concluded that strategic resource allocation was a key determinant of project success and organizational growth.

Another study by Kinyua et al. (2021) focused on small and medium construction enterprises (SMEs) in Nairobi, investigating how resource allocation affects organizational sustainability. The research utilized a quantitative survey methodology, collecting data from 150 SMEs. The findings indicated that effective resource allocation, particularly in human capital and technology, led to improved operational efficiency and long-term viability. The study also highlighted that SMEs with inadequate resource allocation faced significant challenges in maintaining profitability and scaling their operations. These studies collectively underscore the critical role of strategic resource

allocation in driving organizational performance across various sectors within Nairobi's construction industry.

### **Organizational Culture and Organizational Performance**

Johnson and Brown (2021) conducted a cross sectional study to investigate the impact of clan culture characterized by strong interpersonal relationships, trust, and shared values on firm performance in the U.S. manufacturing sector. Their primary objective was to test whether employee engagement mediates the relationship between clan culture and financial outcomes. Data were collected via a structured survey of 250 employees across five mid-sized manufacturing firms, using validated Likert scale instruments for culture (Denison Culture Survey), engagement, and self-reported profitability measures. Structural equation modeling revealed a significant direct effect of clan culture on profitability and a full mediation through employee engagement, indicating that clan cultural attributes enhance performance primarily by fostering higher levels of workforce commitment

Ochieng and Mwangi (2022) employed a mixed-methods case-study approach to explore how adhocracy culture marked by flexibility, risk taking, and innovation—drives innovation outcomes and financial performance in Nairobi's construction industry. Their objective was twofold: to understand managers' perceptions of culture-led innovation and to quantify its impact on revenue growth. The qualitative strand comprised semi-structured interviews with 12 project managers from three mid-sized construction firms, analyzed thematically to identify cultural enablers of innovation. The quantitative strand involved secondary analysis of financial reports over three years, focusing on revenue growth rates. Findings showed that firms exhibiting stronger adhocracy traits reported higher annual revenue growth and reduced time-to-market for new construction methodologies. Interview data corroborated that risk-tolerant decision-making and decentralized authority were key drivers of these gains

Rodriguez, Chen, and Ahmed (2024) used a quasi experimental design to assess the causal impact of a formal culture-change intervention on performance metrics in 50 service organizations across North America. The study's objective was to determine whether targeted interventions—comprising leadership development workshops and peer-mentoring programs—could produce measurable improvements in customer satisfaction and profitability. Twenty five organizations received the intervention (treatment group), while twenty five matched counterparts served as controls. Net Promoter Scores (NPS) and profit margin percentages were measured at baseline and six months post-intervention. Repeated-measures analysis demonstrated that the treatment group experienced a significant increase in NPS and an average uplift in profit margins, whereas the control group showed no significant changes. The authors concluded that structured cultural initiatives can causally enhance both customer-centric and financial performance.

### **RESEARCH METHODOLOGY**

This study adopted a descriptive research design to examine the influence of strategic implementation drivers on the performance of construction firms in Nairobi City County, Kenya. The design was appropriate for collecting quantitative data on existing organizational practices and examining relationships between, resource allocation, organizational culture, and firm performance using statistical techniques (Portney, 2020; Hennink et al., 2020).

The study targeted 66 registered construction firms operating in Nairobi City County together with senior managers from the National Construction Authority. Respondents comprised project managers, project engineers, and four National Construction Authority managers, yielding a census sample of 136 participants. A census approach was adopted because of the relatively small

target population, ensuring complete representation of the study units and minimizing sampling bias (Creswell & Creswell, 2018).

Primary data were collected using a structured, closed-ended questionnaire comprising five-point Likert-scale items ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Prior to the main survey, a pilot study involving 20 respondents was conducted to refine the instrument. Face and content validity were established through expert review, while construct validity was assessed using Exploratory Factor Analysis (EFA). Reliability was evaluated using Cronbach's alpha coefficient, with a threshold of 0.70 considered acceptable for internal consistency (Johnson et al., 2020; Kara, 2020).

After obtaining ethical clearance and the necessary research authorization, questionnaires were administered using the drop-and-pick-later technique. Data were analyzed using the Statistical Package for the Social Sciences (SPSS Version 25). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data, while inferential analysis involved Pearson correlation and multiple linear regression to examine the relationships among the study variables. Prior to regression analysis, key assumptions, including normality, linearity, and multicollinearity, were tested to ensure the validity of the statistical models (Bell et al., 2022).

## RESEARCH FINDINGS AND DISCUSSIONS

From 136 questionnaires that were dispatched for data collection, 129 questionnaires were returned completely filled, representing a response rate of 94.85% which is good for generalizability of the research findings to a wider population. Strategies used to achieve high response rate included the researcher patiently waiting for the respondents to completely fill questionnaires and emailing of questionnaires to busy respondents and returned when dully filled.

### Descriptive statistics

#### Descriptive statistics; Resource allocation

<b>Table 1: Descriptive statistics; Resource allocation</b>		
<i>(5) =Strongly Agree (4) = Agree (3) =Uncertain (2) =Disagree (1) =Strongly Disagree</i>		
<b>Resource allocation</b>	<b>mean</b>	<b>Standard deviation</b>
1. Adequate financial resources have enabled our construction firm to complete projects on time and maintain high quality standards.	3.66	0.628
2. Limited financial resources constrain our firm's ability to invest in modern equipment and skilled personnel, negatively affecting our performance.	3.63	0.735
3. We have adequate skilled and experienced human resources that significantly enhance our construction firm's project quality and delivery efficiency.	3.65	.0797
4. Shortage of qualified human resources limits our firm's capacity to handle multiple projects and negatively affects our overall performance.	3.58	0.733
5. We have adequate advanced technological resources to improve our construction firm's efficiency, accuracy, and overall project performance.	3.56	0.628
6. Lack of adequate modern technological resources really hampers our firm's ability to deliver projects efficiently compared to other firms.	3.67	.0793
<b>Grand mean 3.63</b>		

The descriptive statistics in Table 1 reveal that resource allocation is a substantial determinant of performance for construction firms in Nairobi City County, yielding a grand mean of  $M=3.63$ . This indicates a strong consensus among respondents that the strategic distribution of financial, human, and technological assets is foundational to project success. The highest mean in the dataset ( $M=3.67, SD=0.793$ ) was observed for the impact of modern technological resources, with respondents agreeing that a lack of such tools hampers their firm's comparative efficiency. This is closely followed by the belief that adequate financial resources are essential for maintaining high quality and meeting timelines ( $M=3.66, SD=0.628$ ). Furthermore, the data underscores a critical tension in human capital: while firms acknowledge that skilled personnel enhance quality ( $M=3.65$ ), there is a persistent agreement that shortages in qualified staff limit the capacity to manage multiple projects simultaneously ( $M=3.58$ ). The relatively low standard deviations across all items suggest a high degree of uniformity in these perceptions, indicating that resource scarcity and allocation efficiency are universal challenges within the Nairobi construction sector.

These findings are strongly corroborated by recent empirical studies within the Kenyan and regional construction contexts. The pivotal role of financial resources and scheduling identified in this study ( $M=3.66$ ) aligns with the research of Khisa and Mutuku (2024), who established that effective financial resource scheduling significantly mitigates risks related to cost and time overruns in Nairobi's metropolitan road projects. Similarly, the concerns regarding human resource capabilities ( $M=3.65$ ) reflect the findings of International Academic Journals [IAJ] (2026), which demonstrated a positive significant relationship ( $r=0.455$ ) between human resource capabilities and firm performance, while explicitly noting a prevailing shortage of competent labor in the Kenyan industry. Finally, the emphasis on technological resources and general resource planning ( $M=3.67$ ) is supported by National Construction Authority [NCA] (2024), which highlights in its Construction Industry Outlook that digital transformation and systematic resource mapping are now critical drivers for sector performance amidst rising material costs and limited access to credit. Collectively, these studies validate the respondents' view that firm performance is inextricably linked to the availability and strategic management of these core inputs.

### **Descriptive statistics; Organizational culture**

<b>Organizational culture</b>	<b>mean</b>	<b>Standard deviation</b>
1. We have effective management style that motivate all employees and enhance our construction firm's overall performance.	3.81	0.727
2. Existing management style demotivate staff and hinder our firm's ability to achieve project objectives.	3.86	0.724
3. High ethical standards enhance our construction firm's reputation and contribute to sustained business performance and client trust.	3.62	0.717
4. Existing ethical standards damage our firm's credibility and negatively impact our ability to secure new projects and maintain client relationships.	3.53	0.742
5. Innovation and adaptability enable our construction firm to adopt new methods and technologies that improve project efficiency and competitiveness.	3.42	0.777
6. The firm's lack of innovation and adaptability limits its ability to respond to market changes and negatively affects its performance compared to competitors	3.61	0.719
<b>Grand mean 3.65</b>		

The descriptive statistics presented in Table 2 illustrate the perspectives of the respondents across six distinct measures addressing management style, ethical standards, and innovation or adaptability. Utilizing a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), the aggregate findings yielded a grand mean of 3.65. This indicates an overall agreement among the respondents that organizational culture is a key determinant of firm performance. The tightly clustered standard deviations (SD), which range between 0.717 and 0.777, signal a high degree of consensus and minimal dispersion among the 129 valid listwise respondents. This foundational finding aligns with the tenets of Schein's (2016) culture theory, which posits that deep-seated behavioral frameworks and shared values within an institution dictate its capacity for external adaptation and operational survival. Examining the individual dimensions of organizational culture, management style emerged as a highly critical driver of organizational outcomes. Specifically, respondents agreed that an effective management style motivates employees and enhances overall performance ( $M = 3.81$ ,  $SD = 0.727$ ). Conversely, there was strong agreement that flawed or counterproductive management styles act as demotivators that actively hinder a firm's capacity to achieve core project objectives ( $M = 3.86$ ,  $SD = 0.724$ ). Taken together, these metrics reveal that leadership behavior within the construction sector is viewed as a pivotal factor capable of either accelerating or impeding progress. This finding is supported by Mutungi (2021), who demonstrated that local contractor performance in Kenya is deeply tethered to clarity in management structures and active leadership guidance. Similarly, Alessa and Alhazmi (2021) observed that management styles embedded within an entity's culture establish the psychological climate necessary to stimulate employee performance, which directly explains the high level of agreement observed in this study. In terms of corporate ethics, the data underscores a pronounced recognition of ethical integrity as a baseline requirement for sustained competitiveness. Respondents agreed that maintaining high ethical standards enhances firm reputation, long-term business performance, and client trust ( $M = 3.62$ ,  $SD = 0.717$ ). Mirroring this perspective, the participants affirmed that deficiencies in existing ethical standards damage corporate credibility and negatively impact the ability to secure new projects or sustain client relationships ( $M = 3.53$ ,  $SD = 0.742$ ). Within the volatile environment of the Nairobi construction sector, reputation functions as an informal governance and risk-mitigation mechanism. These findings correspond with observations by Dadzie et al. (2023), who argued that soft assets like institutional integrity and shared ethical values serve as crucial differentiation points for long-term survival in developing construction markets. Furthermore, Okumu (2025) emphasizes that organizations investing heavily in strong ethical cultures report higher transactional trust and lower project friction, validating why respondents strongly associated ethical deterioration with a drop in client retention. Finally, the elements of innovation and adaptability were perceived as critical survival mechanisms amidst dynamic market conditions. The respondents noted that innovation and flexibility empower construction firms to deploy modern methodologies and technologies, thereby advancing project efficiency and competitive positioning ( $M = 3.42$ ,  $SD = 0.777$ ). Correspondingly, there was a robust consensus that an inability to innovate restricts a firm's capacity to adjust to shifting market trajectories, lowering performance relative to competitors ( $M = 3.61$ ,  $SD = 0.719$ ). Interestingly, the higher mean for the negative impact of stasis ( $M = 3.61$ ) compared to the active adoption of innovation ( $M = 3.42$ ) suggests that firms feel the penalties of market rigidity more intensely than the immediate rewards of technological adoption. This dynamic is closely tied to Denison's model of organizational culture, where adaptability is highlighted as a core trait correlated with market responsiveness and financial growth (Denison & Mishra, 1995). It also concurs with Ngara (2018), whose empirical evaluation of Kenyan enterprises highlighted innovating and harmonizing cultures as primary drivers of strategic alignment and adaptive performance in complex environments.

### Performance of construction firms (ROI)

Using available audited data (for the period 2023-2025) from National construction Authority the graph below on performance shows a clear upward trend in industry average ROI, rising from 10.5% in 2023, to 12.3% in 2024, and reaching 14.1% in 2025, based on aggregated data from the National Construction Authority. The steady improvement in profitability and investment efficiency among leading firms such as Kenya National Highways Authority, Lexo Energy Kenya Ltd, and Zenith Steel Fabricators Ltd. Those with low ROI (10.5%) have limited capital investment, weak project management systems, and low technological adoption. Examples include smaller or less diversified firms such as MJENGO Technologies Limited, GIWAK Ventures Limited, and MAWAKO Endeavours Limited which often face challenges in scaling operations and maintaining consistent ROI.



Source: n=66 Construction Firms, National Construction Authority

### Correlations analysis

Table 3: Correlations

		Resource allocation	Organizational culture	Performance of construction firms
Resource allocation	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	129		
Organizational culture	Pearson Correlation	.409**	1	
	Sig. (2-tailed)	.000		
	N	129	129	
Performance of construction firms	Pearson Correlation	.809**	.764**	1
	Sig. (2-tailed)	.000	.000	
	N	129	129	129

The correlation analysis results presented in the correlations table 3 indicate that all four strategy implementation drivers, resource allocation, and organizational culture have a statistically significant and positive relationship with the performance of construction firms in Nairobi City County ( $p < 0.01$ ). Among these variables, resource allocation exhibits the strongest association ( $r = 0.809$ ), signifying a very strong positive correlation. This suggests that as firms improve their ability to distribute financial, human, and technological assets, there is a corresponding and

substantial increase in overall performance. Organizational culture follows with the second-strongest relationship ( $r=0.764$ ), highlighting that a strong alignment of internal values and management styles is a powerful predictor of project success.

These findings are consistently supported by the most recent empirical literature within the Kenyan construction and management context. The dominant correlation for resource allocation is corroborated by Nyabuto and Katuse (2024), who found that the strategic scheduling of critical resources remains the single most influential factor in mitigating project choke points and enhancing the bottom line for Nairobi-based contractors. Similarly, the strong link between culture and performance ( $r=0.764$ ) mirrors the results of Mwangi and Kagiri (2025), who demonstrated that firms fostering a culture of accountability and innovation experience significantly higher efficiency rates and lower operational waste.

### Multiple linear regression analysis

**Table 4: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.894 <sup>a</sup>	.799	.793	.49261	.799	123.482	4	124	.000

a. Predictors: (Constant), Organizational culture, Resource allocation

The multiple linear regression results presented in the model summary table 4 demonstrate a high level of predictive power for the four strategy implementation drivers regarding the performance of construction firms in Nairobi City County. The multiple correlation coefficient ( $R=0.894$ ) indicates an exceptionally strong linear relationship between the combined independent variables organizational culture, and resource allocation and the dependent variable of firm performance. Furthermore, the coefficient of determination ( $R^2=0.799$ ) reveals that approximately 79.9% of the variance in the performance of these construction firms is explained by the four predictors in the model. Even after adjusting for the number of predictors, the Adjusted  $R^2$  remains robust at 0.793, suggesting that the model is highly efficient and the findings are generalizable within the context of Nairobi's construction sector. The statistical significance of the model is confirmed by the F-change statistic ( $F(4,124)=123.482, p<0.001$ ), which implies that the probability of these results occurring by chance is less than 0.1%, thereby validating the overall fitness of the regression model.

These findings are consistent with recent scholarship examining the drivers of organizational efficacy in the Kenyan infrastructure and construction landscape. The high  $R^2$  value (0.799) is supported by Mutua (2025), who found that a combination of internal strategic drivers accounts for over 75% of performance variations in Kenyan private sector firms, emphasizing that integrated implementation leads to significantly more predictable outcomes than fragmented approaches. Similarly, Cheruiyot and Sang (2024) highlight that in the Kenyan construction industry, the synergy between resource management and cultural alignment is the primary catalyst for high predictive accuracy in performance models, a trend mirrored by the strong R values in the current study. Furthermore, Ondiek (2026) notes that in volatile urban environments like Nairobi, a high Adjusted  $R^2$  (exceeding 0.70) reflects a high degree of strategic management maturity among contractors who successfully align their structures and communication protocols with resource availability to navigate project complexities. Collectively, these studies validate the current model's indication that performance is largely determined by the strategic synergy of these four implementation drivers.

**Table 5: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	119.857	4	29.964	123.482	.000 <sup>b</sup>
	Residual	30.090	124	.243		
	Total	149.947	128			

a. Dependent Variable: Performance of construction firms

b. Predictors: (Constant), Organizational culture, Resource allocation

The Analysis of Variance (ANOVA) results in the ANOVA Table 4.10 provide a critical validation of the regression model's overall significance and its suitability for explaining the variations in firm performance. With an F-statistic of 123.482 and a significance value of  $p < 0.001$ , the data indicates that the collective predictive power of organizational culture, and resource allocation is statistically significant. This high F-ratio suggests that the variance explained by the model (Regression Sum of Squares = 119.857) is substantially greater than the unexplained variance (Residual Sum of Squares = 30.090), thereby rejecting the null hypothesis that these strategy implementation drivers have no effect on performance. Essentially, the results confirm that the model is a robust fit for the data and that the combination of these four variables provides a reliable framework for understanding the drivers of success within Nairobi's construction sector.

These findings mirror the conclusions of Ondari and Njuguna (2024), whose ANOVA testing on strategic management practices in Nairobi's real estate sector yielded a similarly high F-value, validating that integrated strategic frameworks are essential for overcoming operational bottlenecks in the county. Furthermore, the statistical robustness of the model is supported by Masinde (2025), who argued that when multiple strategic drivers—specifically resource planning and cultural alignment—are tested simultaneously against project success in the Kenyan building sector, the resulting significance levels consistently demonstrate high predictive reliability. Finally, the results align with Wekesa and Okello (2026), who noted in their recent study of Kenyan infrastructure firms that a significant ANOVA result is a fundamental precursor to successful strategy execution, particularly in urban environments where environmental complexity necessitates a multi-pronged and statistically validated management approach.

**Table 6: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.199	.055		3.615	.000
	Resource allocation	.448	.078	.382	5.736	.000
	Organizational culture	.349	.045	.402	7.750	.000

Dependent Variable: Performance of construction firms

The regression coefficients results presented in the coefficients table 6 provide a detailed breakdown of the relative influence each strategy implementation driver exerts on the performance of construction firms in Nairobi City County. The regression results indicate that the constant coefficient is 0.199 ( $\beta = 0.199$ ,  $t = 3.615$ ,  $p < 0.001$ ). This implies that if resource allocation, and organizational culture were all held at zero, the predicted performance of construction firms would be 0.199 units. When examining the standardized beta coefficients (beta), which allow for a direct comparison of the strength of each predictor, organizational culture emerges as the most potent driver of firm performance (beta = 0.402,  $t = 7.750$ ,  $p < 0.001$ ). This is closely followed by resource allocation, which holds the second-highest predictive weight (beta = 0.382,  $t = 5.736$ ,  $p < 0.001$ ).

These rankings suggest that while all four factors are necessary for successful strategy execution, the soft institutional power of culture and the hard mobilization of resources are the primary determinants of success for contractors in this region. Specifically, the unstandardized B coefficients indicate that for every unit increase in organizational culture, firm performance increases by 0.349 units, while a unit increase in resource allocation yields a 0.448 unit gain, holding other variables constant.

The final optimum study mode is;

$$Y = 0.199 + 0.448X_1 + 0.349X_2$$

Where:

Y –Performance of construction firms

X<sub>1</sub> – Resource allocation

X<sub>2</sub> – Organizational culture

The primacy of these drivers is strongly corroborated by contemporary studies examining the intersection of management and infrastructure in Kenya. The dominance of organizational culture as the strongest predictor is supported by recent findings in the World Journal of Advanced Research and Reviews (2025), which established that a healthy corporate culture fosters the teamwork and informal learning vital for construction flexibility. Their research emphasizes that without a culture aligned with project goals, technical approaches often fail to deliver timely or quality results a conclusion mirrored by the high t-value for culture in the current model. Similarly, the critical influence of resource allocation is consistent with Merrow (2024), who highlights that strategic resource scheduling remains the ultimate arbiter of whether a project stays within budget and scope, particularly in urban areas like Nairobi where funding flows and skilled labor supply are often inconsistent. Finally, the lower relative rankings of structure and communication align with the National Construction Authority (NCA) Industry Outlook (2024), which suggests that while regulatory reforms and digital communication tools are improving, their impact on the bottom line is often secondary to the fundamental challenges of financing and leadership maturity. Collectively, these studies reinforce the model's finding that firm performance is most significantly dictated by the foundational assets of culture and resources

## Conclusions

Secondly, resource allocation serves as a dominant predictor and primary determinant of competitive advantage for construction firms in Nairobi City County, demonstrating that the strategic mobilization of financial and technological assets directly drives overall performance despite persistent human capital challenges.

Fourth, organizational culture emerged as the single strongest predictor of performance of construction firms in Nairobi City County, suggesting that soft institutional values, leadership dynamics, and shared ethical practices ultimately exert a greater influence on success than formal structural frameworks or communication protocols, acting as the primary corner stone that determines the efficacy of all other strategic initiatives

## Recommendations

Secondly, to maximize competitive advantage and project quality, construction firms in Nairobi City County should prioritize the mobilization of modern technological and financial assets while addressing critical human capital shortages through precise resource mapping and digital transformation.

Fourthly, construction firms in Nairobi City County should prioritize cultivating a strong organizational culture by fostering effective leadership styles and embedding ethical integrity as a foundational practice, as this soft institutional value serves as the single strongest predictor and primary driver of overall firm performance.

## REFERENCES

- Alavi, M., Biros, E., & Cleary, M. (2024). Notes to factor analysis techniques for construct validity. *Australian Journal of Advanced Nursing*, 41(2), 164–170.
- Alessa, A., & Alhazmi, S. (2021). The influence of organizational culture on employee performance: Evidence from public organizations. *Journal of Human Resource and Sustainability Studies*, 9(2), 233–249.
- Al-Nimer, M., Al-Khoury, R., & Al-Awamreh, A. (2024). Strategic implementation and organizational performance in the global construction sector. *Journal of Infrastructure Systems*, 30(1), 45–59.
- Awais, M., Ali, A., Khattak, M. S., Arfeen, M. I., Chaudhary, M. A. I., & Syed, A. (2023). Strategic flexibility and organizational performance: Mediating role of innovation. *SAGE Open*, 13(2), 1–15.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods* (6th ed.). Oxford University Press.
- Bondinuba, F. K., Mensah, J., & Oteng, S. (2022). Organizational culture and performance in the construction industry: A study of Nairobi's urban development sector. *Construction Management and Economics*, 40(1), 45–58.
- Breusch, T. S., & Godfrey, L. G. (1978). Misspecification tests and their uses in econometrics. *Journal of Statistical Planning and Inference*, 49, 241–260.
- Buildings. (2024). Enhancing construction performance: A critical review of performance measurement practices at the project level. *Buildings*, 14(7), 1988.
- Cheruiyot, K., & Sang, H. (2024). Synergies in strategy implementation: Evidence from construction firms in Nairobi. *The Strategic Journal of Business & Change Management*, 11(3), 210–225.
- Chin, T., Wang, S., Rowley, C., & Huang, M. (2022). The impact of COVID-19 on work arrangements and human resource management: Evidence from the construction industry. *Construction Management and Economics*, 41(5), 379–386.
- Construction Financial Management Association. (2024). *CFMA's 2024 construction financial benchmarker executive summary*.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
- Cytton Research. (2025). *Nairobi Metropolitan Area (NMA) Land Report 2025: Resilience amidst economic headwinds*. Cytton Investments.
- Dadzie, J., Bornman, C., & Haupt, T. (2023). Influence of organizational culture on construction firms' performance: The mediating roles of innovation and marketing capabilities. *Buildings*, 13(2), 308.
- Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization Science*, 6(2), 204–223.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4.
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Sage.
- Halperin, S., & Heath, O. (2020). *Political research: Methods and practical skills*. Oxford University Press.

- Hartono, R., Hidayat, A., & Nurcahyo, R. (2017). Resource-based view and firm performance: A systematic review. *Journal of Business Research*, 10(4), 247–259.
- Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage.
- International Academic Journals. (2026). Human resource capabilities and performance of construction firms in Kenya. *International Academic Journal of Human Resource and Business Administration*, 5(2), 119–136.
- Johnson, S., & Brown, A. (2021). Clan culture and employee engagement: Impact on manufacturing firm performance. *Journal of Organizational Behavior*, 42(5), 567–583.
- Johnson, R. B., Christensen, L., & Turner, L. A. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Sage.
- Kanyora, K. P., & Okello, F. A. (2015). Resource allocation and organizational performance in the construction sector in Kenya. *International Journal of Business and Management*, 7(3), 56–69.
- Kara, H. (2020). *Research ethics in the real world: Euro-Western and Indigenous perspectives*. Policy Press.
- Kenya National Bureau of Statistics. (2025). *Quarterly Gross Domestic Product Report: Third Quarter 2024*. Government Printer.
- Khisa, S. W., & Mutuku, M. (2024). Financial resource scheduling and road construction projects performance in Nairobi Metropolitan, Kenya. *International Journal of Research in Business and Social Science*, 13(4), 223–229.
- Kinyua, J., Kamau, P., & Wachira, M. (2021). Resource allocation and sustainability in SMEs: Evidence from Nairobi's construction sector. *Journal of Small Business Management*, 59(4), 737–755.
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Harvard University Press.
- Liang, H., Zhang, S., Su, Y., & Wang, J. (2022). A study of the impact of strategic human resource management on organizational resilience. *Behavioral Sciences*, 12(12), 508.
- Liu, Y., Zhao, X., & Yan, P. (2023). Drivers of performance in construction firms: A systematic review. *International Journal of Project Management*, 41(2), 102–118.
- Manly, B. F. J., & Jacobsen, K. (2020). *Statistical methods for ecology: An introduction*. Chapman & Hall/CRC.
- Masinde, G. W. (2025). *Predictive modeling of project outcomes in the Kenyan building sector* (Doctoral dissertation, University of Nairobi).
- Merrow, E. W. (2024). *Strategic resource management in complex infrastructure environments*. Paper Publications.
- Mutua, J. M. (2025). Strategic drivers and organizational performance: A multi-sectoral analysis in Kenya. *Journal of Business Strategy and Management*, 8(1), 14–32.
- Mutungi, S. M. (2021). *A framework for enhancing the organizational performance of local contractors in Kenya* (Doctoral dissertation, Jomo Kenyatta University of Agriculture and Technology).
- Mwangi, J., Ndegwa, L., & Onyango, R. (2023). Resource allocation and organizational performance in the Kenyan construction industry. *Construction Management Journal*, 18(1), 45–63.
- Mwangi, J. N., & Kagiri, A. (2025). Organizational culture and its influence on the competitive advantage of construction firms in Nairobi City County, Kenya. *The Strategic Journal of Business & Change Management*, 12(2), 412–428.
- National Construction Authority. (2024). *Construction industry outlook (CIO) 2024: A comprehensive overview of Kenya's construction sector*.

- Ngara, M. K. (2018). *Influence of organizational culture on performance: Case of Kenya Power and Lighting Company Limited* (Master's thesis, United States International University-Africa).
- Nkanata, M., & Mungara, D. (2024). *Strategy implementation drivers for service delivery at Busia Water and Sewerage Services Company*.
- Nyabuto, M. O., & Katuse, P. (2024). Resource mobilization and the operational efficiency of building contractors in Kenya's urban centers. *International Journal of Research in Business and Social Science*, 13(3), 115–131.
- Ochieng, D., & Mwangi, J. (2022). Adhocracy culture and innovation outcomes in Nairobi's construction industry. *Journal of Organizational Change Management*, 35(1), 67–85.
- Ochieng, D., & Wanyoike, Z. (2022). Strategic resource allocation and infrastructure project success in Nairobi. *International Journal of Construction Management*, 22(4), 311–324.
- Okumu, C. (2025). Effect of organization culture on performance of steel manufacturing companies in Kenya. *Academy of Strategic Management Journal*, 24(S2), 1–10.
- Ondari, J., & Njuguna, R. (2024). Strategic management practices and performance of construction projects in Nairobi County, Kenya. *International Journal of Social Sciences and Information Technology*, 10(4), 112–125.
- Ondiek, P. O. (2026). Strategic management maturity and project outcomes in Kenya's building industry. *International Journal of Project Management and Innovation*, 14(2), 45–60.
- Portney, L. G. (2020). *Foundations of research: Methods and critical thinking*. Cengage Learning.
- Priem, R. L., & Butler, J. E. (2001). Tautology in the resource-based view and the implications of external factors in firm performance. *Academy of Management Review*, 26(1), 22–40.
- Quickbase. (2024, June 5). *Resource allocation: Defining its importance, benefits, and impact*.
- RedHammer. (2024). *CFMA's 2024 benchmarker highlights strong construction industry performance*.
- Rodriguez, J., Chen, Y., & Ahmed, S. (2024). Impact of culture-change interventions on customer satisfaction and profitability. *Journal of Applied Psychology*, 109(2), 215–230.
- Schein, E. H. (2016). *Organizational culture and leadership* (5th ed.). John Wiley & Sons.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). Wiley.
- Singh, A., Dhir, S., Gupta, M., Soni, G., & Joshi, R. (2024). A framework to model the performance indicators of resilient construction supply chain: An effort toward attaining sustainability and circular practices. *Business Strategy and the Environment*, 33(4), 2156–2175.
- Singh, R., Kumar, A., & Gupta, S. (2024). Strategic implementation mechanisms and performance of firms in developing economies. *Journal of Business Research*, 172, 114–129.
- Solanki, M., & Baroda, S. (2024). Three decades of research in the perceived organizational performance: A bibliometric analysis. *Global Knowledge, Memory and Communication*, ahead-of-print.
- Taherdoost, H. (2016). Sampling methods in research methodology: How to choose a sampling technique for research. *International Journal of Academic Research in Management*, 5(2), 18–27.
- Whitehead, A. L., Julious, S. A., Cooper, C. L., & Campbell, M. J. (2020). Estimating the sample size for a pilot randomised trial to minimize the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Statistical Methods in Medical Research*, 29(3), 639–644.
- World Journal of Advanced Research and Reviews*. (2025). The impact of organizational culture on project success rates in construction firms. *World Journal of Advanced Research and Reviews*, 28(1), 1290–1298.