

AUDIT PLANNING AND FINANCIAL PERFORMANCE OF CONSTRUCTION AND ALLIED FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA

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ABSTRACT

Internal audit planning is one of the governance mechanisms through which listed firms direct scarce assurance resources towards material risks, yet its contribution to financial outcomes remains insufficiently established in the capital-intensive sectors of emerging markets. Construction and Allied Firms listed at the Nairobi Securities Exchange (NSE) operate in an environment characterized by long project cycles, procurement and contract risks, volatile input costs and recurring liquidity pressure, all of which expose their financial performance to weaknesses in planning and control. This study examined the effect of audit planning on the financial performance of Construction and Allied Firms listed at the NSE, Kenya, with financial performance measured using Return on Assets (ROA). The study was anchored on Agency Theory, with Stewardship Theory and Systems Theory providing complementary explanations. An explanatory longitudinal panel research design was adopted, and secondary data were extracted from the annual reports, audited financial statements, corporate governance reports and audit committee reports of four listed firms, namely Bamburi Cement PLC, Crown Paints PLC, East African Portland Cement PLC and East African Cables PLC, over a ten-year period (2016-2025), yielding 40 firm-year observations. Audit planning was measured using a disclosure-based Audit Planning Index (API) constructed from the number of audit committee meetings, audit committee size and audit fees paid to external auditors. Data were analysed using descriptive statistics, Pearson correlation and

simple linear regression. The Audit Planning Index averaged 0.88 (SD = 0.17), indicating generally high disclosure, while ROA averaged 1.92 percent (SD = 7.90). The results revealed a weak negative and statistically insignificant relationship between audit planning and ROA ($r = -0.244$, $p = 0.129$). The regression model explained only 6.0 percent of the variation in ROA ($R^2 = 0.060$; adjusted $R^2 = 0.035$) and was not statistically significant ($F(1, 38) = 2.409$, $p = 0.129$), with an unstandardized coefficient of $B = -11.069$ (standardized $\beta = -0.244$, $t = -1.552$, $p = 0.129$), leading to failure to reject the null hypothesis. The findings imply that the formal presence or disclosure of audit planning practices does not, on its own, translate into superior financial performance unless the plans are risk-based and effectively implemented. The study recommends that management and audit committees of listed construction and allied firms align audit plans with project cost overruns, procurement risks and contract management, strengthen the follow-up of audit recommendations, and invest in audit technology and auditor competence. Regulators, including the Capital Markets Authority and the Institute of Certified Public Accountants of Kenya, should encourage disclosure practices that reflect the substance, and not merely the existence, of internal audit planning.

Key words: Audit Planning, Audit Planning Index, Financial Performance, Return on Assets, Internal Audit, Construction and Allied Firms, Nairobi Securities Exchange, Kenya.

INTRODUCTION

The construction and allied sector occupies a strategic position in Kenya's development agenda because it delivers the roads, housing, energy installations and industrial facilities on which other sectors depend, while its allied manufacturers, notably producers of cement, paints and electrical cables, supply the materials that make such projects possible. The sector is, however, notoriously volatile. According to the Kenya National Bureau of Statistics (2026), construction activity rebounded from a 0.7 percent contraction in 2024 to grow by 6.8 percent in 2025, a swing that followed the 3.0 percent expansion recorded in 2023 (Kenya National Bureau of Statistics, 2025). Such oscillations in output expose firms to uneven revenue streams at the very moment that their cost structures, which are dominated by materials, energy and long-term capital commitments, remain largely fixed. Olurin et al. (2023) pointed out that construction undertakings are characterized by long lead times, complex contractual chains and significant exposure to quality, safety and cost risks, all of which heighten the need for strong internal assurance. Omede and Saidu (2020) similarly established that fluctuations in materials prices have a measurable influence on the performance of building projects, underscoring how quickly input-cost shocks can erode margins. The World Bank (2021) further reported that Kenya carried a stock of 3,972 ongoing public projects, many of them delayed, incomplete or stalled, with the accumulation of pending bills transmitting financial pressure to contractors and suppliers. Against this background, the quality of governance and internal control practised by listed construction and allied firms has a direct bearing on whether capital committed to long-cycle projects is recovered as profit.

Firms listed at the Nairobi Securities Exchange operate within a formal reporting and governance environment, which makes their disclosures a valuable basis for examining how internal governance practices relate to financial outcomes. The internal audit function is central to that environment because it evaluates internal controls, identifies risks, tests compliance and provides assurance to management and boards. Adusupalli (2024) argued that internal audit has evolved from a narrow compliance activity into a strategic governance function that integrates risk management, compliance monitoring and advisory services. Within this broadened mandate, audit planning determines which risks receive attention, how audit resources are allocated, and when audit work is performed. The Institute of Internal Auditors (2024) reinforced this view in the Global Internal Audit Standards, which became mandatory from 9 January 2025 and, under Standard 9.4, require that the internal audit plan be based on a documented assessment of the organization's strategies, objectives and risks. Apandi et al. (2022) likewise emphasized that good audit planning is the foundation of risk assessment and audit effectiveness, particularly where organizations operate in digitalized and rapidly changing environments. Christ et al. (2021) added that the body of internal audit research remains small relative to the profession's growing responsibilities, which leaves many practical questions, including how planning relates to organizational outcomes, insufficiently tested. Taken together, these perspectives position audit

planning as a theoretically important yet empirically under-examined dimension of internal audit practice.

The importance of audit planning is heightened in capital-intensive industries where the areas of exposure, namely project expenditure, procurement, inventory, contract management, capital expenditure, cash management and financial reporting, are both material and interlinked. A well-designed plan can concentrate audit coverage on the most significant transactions and support the early identification of weaknesses before they crystallize into losses. Tumwebaze et al. (2022) observed that the effectiveness of audit committees and the internal audit function shapes the quality of the governance information that reaches the board, which in turn conditions how firms respond to identified risks. Nevertheless, the existence of an audit plan does not automatically imply that audit work will improve financial results. Turetken et al. (2020) demonstrated that internal audit effectiveness depends on a range of influencing factors, which indicates that effectiveness is not automatic and rests on the conditions under which audit findings are acted upon. In the same vein, Alzeban (2023) found, using United Kingdom data, that it is the proportion of internal audit recommendations actually implemented, rather than the mere production of audit findings, that drives higher firm performance. Betti and Sarens (2021) also examined how a digitalized business environment changes the internal audit function, which implies that auditors' capability to use data and technology to identify risks increasingly shapes the value of planning. The usefulness of planning therefore turns on implementation, management responsiveness, audit independence and the quality of the underlying risk assessment.

Financial performance provides an indication of how effectively a firm converts the resources under its control into economic returns, and this study adopts Return on Assets (ROA) as its measure because it relates net income to the asset base employed. ROA is particularly suitable for construction and allied firms, whose operations demand heavy investment in plant, equipment and working capital, so that profitability can only be judged relative to the assets committed. Jiang et al. (2020) used operating performance measures such as ROA to examine the association between internal audit operations-related services and firm performance, demonstrating that internal audit work can be evaluated through accounting returns. Hamed (2023) similarly argued that effective internal control systems are essential for sustaining financial performance over time, a proposition that is commonly tested through profitability ratios. Kalita and Tiwari (2025), in a study of the fifty largest non-financial listed companies in Bangladesh, India, Pakistan and Sri Lanka over 2012-2021, also relied on ROA when establishing a significant positive relationship between audit fees and firm performance. The choice of ROA therefore aligns with accepted practice in the audit and governance literature and permits comparison across firms of different absolute size. It also captures, in a single ratio, the combined effect of operating efficiency, cost control and asset utilization, all of which are areas that audit activity is intended to influence.

Previous empirical research has generally acknowledged the governance value of internal audit, but the evidence on the relationship between specific audit practices and financial performance is far from uniform. Ali Osman and Onsiro (2023) reported a positive relationship between internal audit practices and financial performance in a Kenyan county government, while Wekesa and Malenya (2020) concluded that audit practices influenced the financial performance of Kenya Pipeline Company Limited. Apreku-Djan et al. (2022) reported findings supporting the importance of risk-based auditing for the value-based financial performance of banks in Ghana. In contrast, Nduviri (2022), who analysed 127 firm-year observations of manufacturing firms listed at the NSE, found that audit committee size, expertise and independence were positively associated with financial performance, whereas the frequency of audit committee meetings had a negative and statistically significant association. Kabando et al. (2021) examined the financial structure of construction and allied firms listed at the NSE but did not consider audit planning as an explanatory variable. Much of the existing evidence has therefore focused on banks, public institutions, manufacturers or heterogeneous groups of listed firms, which leaves a contextual gap concerning NSE-listed construction and allied firms, whose project-based operations create distinctive audit-planning requirements. This article addresses that gap by isolating audit planning as one dimension of internal audit practice and testing its relationship with ROA among NSE-listed construction and allied firms between 2016 and 2025.

Statement of the Problem

Construction and allied firms are important contributors to economic growth and industrial development in Kenya, yet firms in the sector continue to experience financial and operational challenges. Declining profitability, liquidity constraints, leverage pressures, governance concerns and, in extreme cases, severe financial distress have all been associated with the sector, and the failure of Athi River Mining Cement Limited is frequently cited as an illustration of how financial and management difficulties can culminate in the collapse of a listed firm. According to Kabando et al. (2021), the financial performance of construction and allied firms listed at the NSE is strongly conditioned by their financial structure, which implies that weaknesses in financial management translate quickly into weaker returns. Olurin et al. (2023) added that cost, quality and safety failures on construction projects impose substantial financial penalties on firms and their stakeholders. The World Bank (2021) similarly warned that delayed and stalled projects accumulate pending bills that squeeze the liquidity of contractors, and Capital FM (2025) reported that the State Department for Roads alone had pending bills of Ksh162 billion at 31 December 2023 against certified works of Ksh650 billion. Such conditions make it imperative that firms in the sector deploy their internal assurance resources where the financial risk is greatest.

Internal audit is expected to support listed organizations by strengthening controls, identifying risks and providing assurance, and audit planning is particularly important because it determines the focus, scope and resourcing of internal audit work. However, the existence of formal planning practices does not necessarily mean that they produce financial benefits. A firm may disclose an

audit plan, a functioning audit committee and an external audit engagement while still experiencing weak implementation, delayed follow-up of audit findings and limited integration of audit recommendations into management decisions. Alzeban (2023) indicated that the benefits of internal audit materialize mainly when recommendations are implemented, and Turetken et al. (2020) reiterated that effectiveness depends on organizational conditions that extend well beyond the existence of a formal function. Nduviri (2022) offered Kenyan evidence that more frequent audit committee meetings were negatively associated with performance among listed manufacturers, suggesting that the volume of governance activity is not a reliable proxy for its value. Consequently, it cannot be assumed that the formalization and disclosure of audit planning will be reflected in higher returns among construction and allied firms.

The empirical literature also reveals contextual and methodological gaps. Previous studies have concentrated on banking institutions, as in Apreku-Djan et al. (2022), on public-sector organizations, as in Ali Osman and Onsiro (2023) and Wekesa and Malenya (2020), or on broad groups of non-financial firms, as in Jiang et al. (2020) and Esing'ole et al. (2024). Construction and allied firms possess distinctive characteristics, including long project cycles, high capital requirements, procurement risks, contractual complexity and sensitivity to input-price changes, which may alter the way audit planning relates to financial outcomes. In addition, many studies treat internal audit as a single composite construct, thereby obscuring which dimension, if any, is associated with performance. The problem addressed in this paper is therefore the limited empirical evidence on whether audit planning, considered as a distinct internal audit practice, is associated with the financial performance of construction and allied firms listed at the NSE. In the absence of sector-specific evidence, management, audit committees and regulators cannot determine whether investments in formal audit planning are reflected in measurable financial outcomes, and this study consequently examines audit planning and ROA using longitudinal secondary data from the listed firms in the sector.

Objective of the Study and Hypothesis

The objective of the study was to assess the effect of audit planning on the financial performance of Construction and Allied Firms listed at the Nairobi Securities Exchange, Kenya. The study was guided by the research question: What is the effect of audit planning on the financial performance of Construction and Allied Firms listed at the Nairobi Securities Exchange, Kenya? In line with this objective, the following null hypothesis was tested at the five percent level of significance. The objective is deliberately confined to audit planning rather than internal audit as a whole, since Christ et al. (2021) have called for research that links individual internal audit practices to organizational outcomes. The outcome of interest is financial performance measured through ROA, consistent with Jiang et al. (2020), and the unit of analysis is the firm-year. As recommended by Saunders et al. (2023) and reiterated by Baltagi (2021) for panel-based inference, the hypothesis was stated in null form so that the evidence could be evaluated against a fixed decision rule rather than an expected direction of effect.

H₀₁: Audit planning has no statistically significant effect on the financial performance of Construction and Allied Firms listed at the Nairobi Securities Exchange, Kenya.

Significance of the Study

The findings of this study are of practical value to several categories of stakeholders. For the management of construction and allied firms, the results provide evidence on whether disclosed audit-planning practices are associated with ROA and therefore help to distinguish between formal audit structures and practices that are translated into financial outcomes. Internal auditors can draw on the findings to align audit plans with organizational risks, which is consistent with the requirement in the Institute of Internal Auditors (2024) Global Internal Audit Standards that plans be grounded in a documented risk assessment, and to ensure that planned engagements culminate in actionable recommendations. Alzeban (2020) established that the effect of internal audit on firm performance is shaped by the independence and expertise of the audit committee, which suggests that auditors and committees should plan their work jointly. Tumwebaze et al. (2022) similarly emphasized that the effectiveness of audit committees and the internal audit function influences the quality of governance reporting, and the present evidence helps both parties to calibrate their expectations about what planning alone can deliver. Management teams are also better placed to decide how much of their limited resources should be devoted to planning, as opposed to execution and follow-up.

Audit committees and boards may use the findings when reviewing the scope, resources and strategic orientation of internal audit. The results assist them in considering whether audit planning is sufficiently risk-based and whether planned activities address significant areas such as project costs, procurement, contracts and financial controls. Esing'ole et al. (2024) noted that manufacturing firms with robust audit committee reports tend to exhibit stronger governance and oversight mechanisms, which implies that committees should look beyond the volume of meetings to the substance of their reports. Regulatory institutions such as the Capital Markets Authority and the Nairobi Securities Exchange may use the sector-specific evidence to refine disclosure guidance for listed construction and allied firms. Investors and lenders, who rely on governance disclosures when assessing risk, will also benefit from evidence on whether such disclosures carry information about future profitability. As Kalita and Tiwari (2025) demonstrated for audit-related variables in South Asia, the informational value of audit disclosures differs across contexts, so evidence from Kenya's listed construction sector complements rather than duplicates the international record.

The study also contributes to the academic literature by isolating audit planning as one dimension of internal audit practice. Much of the existing literature addresses internal audit effectiveness, internal controls, audit independence or broad governance structures, and Christ et al. (2021) have called for more research that links specific internal audit practices to organizational outcomes. By focusing on audit planning in NSE-listed construction and allied firms, the study provides

contextual evidence for a sector characterized by significant capital requirements and operational risk, and it adds a ten-year panel of firm-year observations to a literature that has frequently relied on cross-sectional designs. Jiang et al. (2020) demonstrated the value of panel data for evaluating internal audit and operating performance, and the present study extends that approach to an African listed-firm setting. The insignificant result reported here is itself informative because it tests, and fails to confirm, an assumption that is widely embedded in governance guidance. Future researchers will therefore find a clearer basis for refining the measurement of audit planning and for specifying the conditions under which planning translates into performance.

Scope of the Study

The study was confined to Construction and Allied Firms listed at the Nairobi Securities Exchange and examined the relationship between audit planning and financial performance over the ten-year period from 2016 to 2025. The NSE classifies five firms within the construction and allied segment, but only four, namely Bamburi Cement PLC, Crown Paints PLC, East African Portland Cement PLC and East African Cables PLC, had complete audit-planning disclosures and financial information for the entire period. Athi River Mining Cement Limited was excluded because complete information was not available for the full study period. The unit of observation was the firm-year, producing 40 observations, and the analysis relied exclusively on secondary data obtained from published corporate documents. The study did not seek to measure the full range of internal audit activities, but only those audit-planning characteristics that listed firms disclose publicly, namely audit committee meetings, audit committee size and audit fees paid to external auditors. Saunders et al. (2023) advised that the scope of an explanatory study should be bounded by the availability of consistent and comparable data, and this consideration guided the purposive retention of firms with complete records. Kabando et al. (2021) adopted a comparable restriction to NSE-listed construction and allied firms with complete records, which supports the boundary drawn here.

The choice of the construction and allied segment is justified by its economic importance and its exposure to project, procurement and cost risks. The Kenya National Bureau of Statistics (2026) reported that Kenya's real GDP grew by 4.6 percent in 2025, with construction among the sectors that rebounded strongly, and the same survey linked the recovery of mining and quarrying to increased production of minerals used in cement manufacturing. These linkages illustrate why the listed cement, paint and cable producers are appropriately treated as a single allied group. The scope is also deliberately narrow in terms of variables, since the broader thesis from which this article is derived considered additional internal audit dimensions that are not tested here. Esing'ole et al. (2024) and Nduviri (2022) both restricted their analyses to firms listed at the NSE within specific sectors, and this study follows the same convention in order to preserve comparability with the Kenyan literature. The findings should therefore be generalized with caution to unlisted construction firms, to other NSE sectors or to other countries.

Theoretical Framework

Agency Theory

Agency Theory, formalized by Jensen and Meckling (1976), is concerned with the relationship between principals, such as shareholders, and agents, such as managers, and with the agency costs that arise when ownership is separated from control. Because managers possess more information about the organization than owners, they may pursue interests that are not fully aligned with those of shareholders, and monitoring mechanisms are therefore required to reduce information asymmetry. Internal audit is one such mechanism, and Adusupalli (2024) argued that a well-resourced internal audit function strengthens accountability by evaluating risk management, compliance and control processes on behalf of the board. Audit planning fits this framework because a planned audit identifies where monitoring effort should be concentrated, defines its scope and allocates the resources needed to detect significant control weaknesses. According to Alzeban (2020), the contribution of internal audit to firm performance depends on the strength of the audit committee, which is the agency-reducing body to which internal auditors report. In construction and allied firms, agency problems are likely to arise in procurement expenditure, project costing, contract administration and inventory, so that planned audit coverage of these areas could in principle reduce agency-related losses. Agency Theory also explains why planning may fail to show a direct financial effect, since planning is a monitoring input and not a financial outcome, and Apandi et al. (2022) cautioned that its value depends on how risk assessments are converted into audit work. Agency Theory therefore serves as the principal explanatory foundation for this study, and it predicts a conditional rather than automatic link between audit planning and ROA.

Stewardship Theory

Stewardship Theory offers a complementary perspective by assuming that managers can act as stewards whose interests are aligned with the long-term success of the organization. Donaldson and Davis (1991) argued that where managers are intrinsically motivated to achieve organizational objectives, governance structures should empower rather than merely constrain them, an argument elaborated by Davis et al. (1997) in their formulation of stewardship as a distinct theory of management. Under this view, audit planning is not simply a control imposed on management but a service that provides structured information about risks and control weaknesses which stewards can use to improve operations. Tumwebaze et al. (2022) indicated that audit committee effectiveness and the internal audit function shape the quality of sustainability reporting, a finding that is consistent with the notion of audit as a support to management's stewardship role. Njagi and Njagi (2023) likewise stressed that the independence of internal auditors, which is a precondition for credible advice, is shaped by both organizational support and professional guidelines. Stewardship Theory therefore suggests that the benefits of audit planning will depend on whether managers value and act on the information it generates. Where managers are receptive, formal planning may enhance decision-making and performance, but where they treat the plan as a compliance document, its financial effect is likely to be negligible.

Systems Theory

Systems Theory, associated with von Bertalanffy (1968), views an organization as a set of interdependent components whose collective performance depends on the interaction among them rather than on any single element. Internal audit operates within the broader system of governance, risk management, internal control, finance and operations, so that audit planning can influence financial performance only through its interaction with these components. Hamed (2023) demonstrated that internal control systems contribute to the sustainability of financial performance when they are integrated with management processes, which supports the systems proposition that isolated controls have limited effects. Betti and Sarens (2021) made a related point in observing that the internal audit function in a digitalized environment draws its value from its connection to data, technology and business processes. A plan that identifies a procurement weakness, for example, must be followed by audit execution, management response and corrective action before any financial effect can occur, as Alzeban (2023) showed in demonstrating that implemented recommendations, rather than findings alone, are linked to firm performance. The systems perspective therefore explains why a formal audit-planning disclosure may not independently predict ROA, since profitability in construction and allied firms is also shaped by project execution, input prices, financing structure and market demand. It further implies that planning should be evaluated as one element of a performance system, and not as a stand-alone driver.

EMPIRICAL LITERATURE REVIEW

Audit Planning and Financial Performance

Empirical evidence generally indicates that effective audit arrangements can create organizational value, but the results vary by sector, country, measurement and institutional context. Apandi et al. (2022) examined good audit-planning practices in a digital environment and emphasized the role of planning in risk assessment and audit effectiveness, which supports the argument that planning directs attention towards relevant risks. The Institute of Internal Auditors (2024) has since codified this expectation in Standard 9.4 of the Global Internal Audit Standards, which requires the audit plan to be based on a documented assessment of strategies, objectives and risks and to be revisited as conditions change. Jiang et al. (2020) used panel data on non-financial firms to examine internal audit operations-related services and firm operating performance, and their evidence suggested that internal audit work directed at operations is associated with differences in measures such as ROA. Apreku-Djan et al. (2022) examined risk-based auditing and the value-based financial performance of banks in Ghana, and their findings supported the importance of risk-focused audit approaches, which indicates that risk-focused planning can matter where it is embedded in banking supervision. Adusupalli (2024) emphasized that internal audit adds most value when risk management and compliance strategies are integrated into its work programme. None of these studies, however, isolates audit planning as a disclosed attribute and relates it to ROA among listed construction and allied firms, so that the direction of the relationship in this sector remains an

empirical question. The mixed picture also warns against assuming that results from banks or public institutions apply directly to project-based industrial firms.

Audit Committee Characteristics and Financial Performance

Because the Audit Planning Index in this study is constructed partly from audit committee meetings and committee size, the evidence on audit committee characteristics is directly relevant. Nduviri (2022) applied pooled ordinary least squares regression to 127 firm-year observations of NSE-listed manufacturing firms and reported that audit committee characteristics jointly accounted for 22 percent of the variation in financial performance, with size, expertise and independence positively and significantly associated with performance. The same study found a negative and statistically significant relationship between the frequency of audit committee meetings and performance, a result that is consistent with the view that frequent meetings may signal firms in difficulty and not stronger oversight. Esing'ole et al. (2024) used panel data on listed manufacturers and found that firms with robust audit committee reports tend to exhibit stronger governance and oversight mechanisms, which suggests that the content of committee reporting matters more than its frequency. Alzeban (2020), using survey and annual report data from 119 listed companies in Saudi Arabia and the United Arab Emirates, showed that audit committee independence and accounting and auditing expertise mediate the effect of internal audit independence and size on firm performance. Tumwebaze et al. (2022) similarly stressed that the effectiveness, and not merely the existence, of audit committees determines their contribution to governance outcomes. These findings imply that counting meetings or members, as many disclosure-based indices do, may capture form rather than substance and may therefore be a weak predictor of ROA.

Audit Fees and Financial Performance

Audit fees paid to external auditors are widely used as a proxy for audit effort and quality, although their relationship with firm performance is context-dependent. Kalita and Tiwari (2025), analysing the fifty largest non-financial listed companies in four South Asian countries between 2012 and 2021, established a significant positive relationship between audit fees and ROA and a non-linear relationship with Tobin's Q, which suggests that the marginal benefit of higher fees diminishes beyond a point. Eltweri et al. (2020) pointed out that the adoption of international standards on auditing in developing countries is shaped by institutional and cultural factors, which implies that the same fee level may purchase different levels of assurance across settings. Njagi and Njagi (2023) emphasized that auditor independence is influenced by several organizational and professional factors, so that higher fees do not automatically guarantee objectivity. Jiang et al. (2020) noted that the relationship between assurance services and performance depends on the nature of the services provided, an observation that applies equally to the distinction between audit effort and audit outcomes. As supported by these studies, audit fees capture the resources committed to assurance but not necessarily the effectiveness with which those resources are directed. In a sector such as construction, where firm size and project complexity vary

considerably, fees may also reflect the scale and risk of operations rather than the quality of audit planning.

Implementation of Audit Recommendations, Internal Control and Performance

A recurring theme in recent research is that the financial benefits of internal audit arise from implementation rather than from planning or reporting alone. Alzeban (2023) measured the implementation of internal audit recommendations as the proportion of findings acted upon and found that higher implementation was associated with higher firm performance, with certain audit committee characteristics strengthening this effect. Turetken et al. (2020) operationalized internal audit effectiveness and identified a range of influencing factors, which supports the view that effectiveness is not guaranteed by the formal existence of the function. Hamed (2023) argued that internal control systems sustain financial performance when they are well designed and consistently applied, and Boulhaga et al. (2023) reported that the quality of internal control moderates the relationship between environmental, social and governance ratings and firm performance. In the Kenyan context, Ali Osman and Onsiro (2023) found that internal audit practices were positively related to financial performance in a county government, and Musyoki (2023) emphasized the role of internal control systems in preventing financial fraud. Wekesa and Malenya (2020) similarly reported that audit practices influenced performance at Kenya Pipeline Company Limited. Collectively, these studies suggest that where a relationship between audit activity and performance is found, it typically operates through control quality and recommendation follow-up, both of which a disclosure-based index of planning cannot observe directly.

Audit Planning within Kenya's Construction and Allied Sector

Within Kenya's construction and allied environment, the literature has examined financial structure, project management and governance-related issues, but relatively little attention has been given to audit planning as an explanatory variable. Kabando et al. (2021) established that financial structure influences the financial performance of construction and allied firms listed at the NSE, which confirms the relevance of financial management to returns in the sector but leaves the role of assurance unexplored. Olurin et al. (2023) reviewed the nexus between safety, quality control and sustainability in construction and emphasized that failures in these areas carry significant financial consequences. Omede and Saidu (2020) demonstrated that materials price fluctuation affects the performance of building projects, a risk that is particularly relevant to the cement, paint and cable producers that supply and compete in the sector. The World Bank (2021) reported that Kenya had 3,972 ongoing public projects, many of them delayed or stalled, and Capital FM (2025) cited contractor non-performance, delayed exchequer releases, budget cuts and inadequate project management as factors behind the accumulation of pending bills. Such risks suggest that the areas needing audit attention in the sector are largely project-related and may not be adequately represented by generic indicators such as meeting counts or committee size. The

Kenya National Bureau of Statistics (2026) further documented the cyclical nature of construction output, which implies that annual ROA is likely to be driven strongly by the demand cycle.

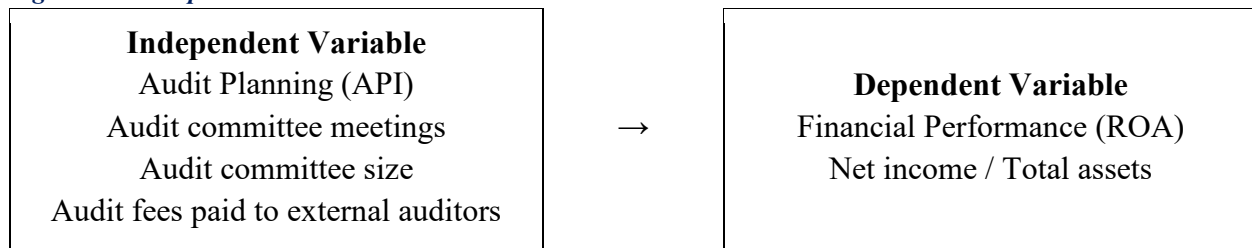
Summary of Research Gaps

The reviewed literature demonstrates broad agreement that audit and governance mechanisms can influence performance through risk management, transparency and accountability, but it does not provide a uniform conclusion about the independent contribution of audit planning. Three related gaps emerge. First, there is a contextual gap, since most of the evidence reported by Apreku-Djan et al. (2022), Ali Osman and Onsiro (2023), Wekesa and Malenya (2020) and Esing'ole et al. (2024) concerns banks, public institutions or manufacturers, whereas construction and allied firms face distinctive risks associated with project cycles, procurement, contracts and material prices. Second, there is a variable-specific gap, because studies such as Nduviri (2022) and Alzeban (2020) examine audit committee characteristics or internal audit as a whole instead of isolating audit planning, so that the specific contribution of planning is unclear. Third, there is a methodological gap, since the audit-planning literature relies heavily on perception surveys, while Christ et al. (2021) emphasize the need for evidence that links audit practices to measurable organizational outcomes. The present study responds to these gaps by using longitudinal firm-year observations for 2016-2025 and a disclosure-based Audit Planning Index, and by testing the relationship in the specific setting of NSE-listed construction and allied firms. In keeping with Saunders et al. (2023), it does not assume that audit planning must have a positive effect, but tests the relationship empirically.

Conceptual Framework

The conceptual framework guiding this study links audit planning, the independent variable, to financial performance, the dependent variable. Audit planning is operationalized through an Audit Planning Index (API) derived from three disclosed indicators, namely the number of audit committee meetings held in a year, audit committee size and audit fees paid to external auditors, while financial performance is operationalized as Return on Assets (ROA), computed as net income divided by total assets. Following Apandi et al. (2022) and the Institute of Internal Auditors (2024), the framework proposes that stronger planning should direct audit attention towards material risks, improve control coverage and facilitate the early identification of weaknesses. Consistent with Alzeban (2023) and Hamed (2023), however, the framework recognizes that the translation of planning into financial performance depends on implementation, management response and integration with internal control and governance processes. The empirical relationship may therefore be positive, negative or insignificant, and Figure 1 depicts the direct path tested in this study, which is consistent with the model specification presented in Section 3.5.

Figure 1: Conceptual Framework



Source: Author's conceptualisation (2026), adapted from Alzeban (2023) and Hamed (2023).

Operational Definition of Key Variables

For clarity and replicability, Table 1 defines how each variable used in this study was operationalized. The disclosure-based approach follows the practice of coding publicly available governance information, as applied by Tumwebaze et al. (2022) in their analysis of audit committee effectiveness and reporting, and ROA follows the accounting-return measures used by Jiang et al. (2020) and Kalita and Tiwari (2025). Audit planning is a latent construct that cannot be observed directly in secondary data, and Christ et al. (2021) noted that much of internal audit activity is not visible outside the organization, which is why observable disclosures are used as proxies. Each indicator was coded as one where the relevant disclosure was present and zero where it was absent, and the coded indicators were combined into a single index bounded between zero and one so that firms and years could be compared on a common scale. A higher index value therefore signals more extensive disclosure of audit-planning-related information. Financial performance, in contrast, is a continuous accounting ratio that expresses net income as a proportion of total assets, which, as in Kalita and Tiwari (2025), permits comparison across firms of different size.

Table 1: Operationalization of Variables

Variable	Type	Measurement
Audit Planning (API)	Independent	Disclosure-based Audit Planning Index (range 0 to 1) derived from the three indicators below
Audit committee meetings	Indicator of API	Number of audit committee meetings held in a year (coded 1 if disclosed, 0 otherwise)
Audit committee size	Indicator of API	Number of audit committee members (coded 1 if disclosed, 0 otherwise)
Audit fees	Indicator of API	Audit fees paid to external auditors (coded 1 if disclosed, 0 otherwise)
Financial Performance (ROA)	Dependent	Net Income / Total Assets

Source: Author's conceptualisation (2026), adapted from Tumwebaze et al. (2022) and Jiang et al. (2020).

RESEARCH DESIGN

The study adopted an explanatory research design using longitudinal panel data, which is appropriate where the objective is to establish whether variation in one variable is statistically associated with variation in another. According to Saunders et al. (2023), explanatory designs are suited to research that seeks to explain relationships between variables and to test hypotheses derived from theory, and they are commonly implemented with secondary data when the constructs of interest are publicly disclosed. The longitudinal structure allowed repeated observations of the same firms over ten years, so that both cross-sectional differences between firms and changes within firms over time contributed to the analysis. Arkhangelsky and Imbens (2024) pointed out that panel data offer important advantages over single-period designs because they permit researchers to account for unobserved heterogeneity and to follow outcomes as conditions change. Baltagi (2021) similarly emphasized that panel structures increase the number of observations, reduce collinearity among regressors and improve the efficiency of estimates. These attributes were particularly valuable in the present study, in which the number of listed construction and allied firms is small and the economic cycle in the sector varied considerably across the study period. The design therefore enabled the study to examine whether disclosed audit-planning characteristics were statistically associated with ROA across firms and years instead of relying on a single-period assessment.

Population and Sample

The study was carried out in Kenya and targeted Construction and Allied Firms listed at the Nairobi Securities Exchange. A national focus was adopted because the operations and assets of these firms are distributed across the country and are not confined to Nairobi. Five firms are classified within the segment, of which four were retained because they had complete audit-planning disclosures and financial information for the study period, namely Bamburi Cement PLC, Crown Paints PLC, East African Portland Cement PLC and East African Cables PLC. Athi River Mining Cement Limited was excluded because complete information was not available for the entire period. Saunders et al. (2023) explained that purposive selection is justified where the study requires cases with complete and comparable information, and Kabando et al. (2021) similarly confined their analysis of construction and allied firms to the NSE-listed firms for which data were available. The unit of observation was the firm-year, and each firm contributed ten observations for 2016-2025, resulting in 40 firm-year observations, as shown in Table 2. Esing'ole et al. (2024) also relied on a small, sector-specific panel of listed firms, so that the sample size is consistent with the Kenyan literature on listed-firm governance.

Table 2: Distribution of Firm-Year Observations

Firm	Period	Observations
Bamburi Cement PLC	2016-2025	10
Crown Paints PLC	2016-2025	10
East African Portland Cement PLC	2016-2025	10
East African Cables PLC	2016-2025	10
Total	2016-2025	40

Source: Secondary Data (2026).

Data Collection

The study relied entirely on secondary data extracted from annual reports, audited financial statements, corporate governance reports, audit committee reports and related corporate disclosures. The documents were sourced from the NSE, individual company websites and other authorized financial reporting platforms. A structured data-extraction sheet was used to record the audit-planning indicators and the financial information required to compute ROA, which ensured consistency across firms and years. According to Saunders et al. (2023), structured extraction instruments reduce variation in the way information is recorded and improve the reliability of document-based research. Tumwebaze et al. (2022) similarly relied on coded disclosures from published reports when analysing audit committee effectiveness, which supports the use of disclosure-based indicators for governance research. In this study, disclosed information was coded as one and undisclosed information as zero for the relevant audit-planning indicators, and the resulting scores were combined into the Audit Planning Index. Net income and total assets were taken from the audited statements of financial position and comprehensive income, and ROA was computed for each firm-year. Nduviri (2022) likewise extracted audited financial statement data for listed firms over multiple years, so that the data-collection approach is consistent with established Kenyan practice.

Data Analysis

Data were coded, cleaned and entered into statistical software for analysis. Descriptive statistics, comprising the mean, standard deviation, minimum and maximum, were used to summarize the distribution of audit planning and financial performance, while Pearson product-moment correlation was used to assess the direction and strength of the association between the Audit Planning Index and ROA. Simple linear regression was then used to test the study hypothesis, with the t-statistic assessing the significance of the audit-planning coefficient and the F-statistic assessing overall model significance. The coefficient of determination (R^2) was used to determine the proportion of variation in ROA explained by audit planning. Baltagi (2021) advised that regression results should be accompanied by checks of the underlying assumptions, and the analysis therefore considered diagnostic issues such as normality, multicollinearity and

autocorrelation, although multicollinearity is not a concern in a single-predictor model. The analysis was conducted at the five percent significance level, so that a p-value below 0.05 was treated as statistically significant. Saunders et al. (2023) recommended that inferential decisions be made against a pre-specified significance threshold, and Arkhangelsky and Imbens (2024) cautioned that associations estimated from observational panel data should not be interpreted as causal without further identification strategies.

Model Specification

The relationship between audit planning and financial performance was specified as a simple linear regression in which ROA is regressed on the Audit Planning Index. The specification follows the practice of relating internal audit and governance variables to accounting returns, as applied by Jiang et al. (2020) and Kalita and Tiwari (2025), and the model for the study objective was therefore expressed as follows. A bivariate specification is appropriate for the single-objective design of this article, because the broader thesis from which it is derived examined additional internal audit dimensions separately. The model assumes a linear relationship between the index and ROA, an assumption that is commonly adopted in the audit-governance literature, as in Alzeban (2020) and Nduviri (2022), who both estimated linear regression models. Firm-specific and time-specific determinants of profitability, such as project mix and the construction cycle documented by the Kenya National Bureau of Statistics (2026), are therefore absorbed in the error term.

$$ROA_{it} = \beta_0 + \beta_1 API_{it} + \varepsilon_{it}$$

Where ROA_{it} represents the financial performance of firm i in year t ; API_{it} represents the Audit Planning Index of firm i in year t ; β_0 is the constant term; β_1 is the regression coefficient of audit planning; and ε_{it} is the error term. The null hypothesis was tested using the t-statistic for β_1 , and a statistically insignificant β_1 would imply failure to reject the null hypothesis. Because the model contains a single explanatory variable, it isolates the bivariate association, as recommended by Saunders et al. (2023) for single-objective explanatory studies, although Baltagi (2021) noted that omitted determinants of performance remain absorbed in the error term. The sign and significance of β_1 carry the substantive meaning of the model: a positive and significant coefficient would support the view that stronger audit planning is associated with higher returns, a negative and significant coefficient would suggest that planning disclosures coincide with weaker returns, and an insignificant coefficient would indicate that the data cannot distinguish the effect from zero.

Ethical Considerations

The study used publicly available secondary corporate information and did not involve human respondents. Ethical practice nevertheless required accurate extraction, representation and citation of information, avoidance of any manipulation of financial data, and faithful reporting of statistical findings, including those that did not support the expected relationship. Saunders et al. (2023)

stressed that research integrity extends to secondary data, since the researcher remains responsible for the accuracy and fair interpretation of the documents used. The Institute of Internal Auditors (2024) likewise places integrity and objectivity at the core of the internal audit profession, which makes transparent reporting of results especially fitting in a study of audit practice. All sources were acknowledged in accordance with the American Psychological Association (APA) 7th edition referencing conventions, and the original documents remain available from the NSE and company websites for verification. Because the data originate from audited and publicly filed documents, the risk of harm to individuals is minimal, but the researchers remained alert to the possibility of misinterpreting disclosures, which Eltweri et al. (2020) noted can vary with institutional and cultural context. Findings that were statistically insignificant were reported in full to avoid selective presentation.

DESCRIPTIVE STATISTICS

The analysis is based on 40 firm-year observations from four NSE-listed construction and allied firms covering 2016-2025, with each firm contributing ten observations. Table 3 presents the descriptive statistics for ROA and the Audit Planning Index. ROA had a mean of 1.92 percent and a standard deviation of 7.90, with a minimum of -12.70 and a maximum of 20.50, a range of 33.20 percentage points that indicates substantial variation in financial performance across firm-year observations. This dispersion is consistent with the cyclical nature of the sector documented by the Kenya National Bureau of Statistics (2026), which recorded a 0.7 percent contraction in construction in 2024 followed by a 6.8 percent rebound in 2025. The Audit Planning Index had a mean of 0.88 and a standard deviation of 0.17, with values ranging from 0.20 to 1.00. The relatively high mean indicates that the sampled firms generally disclosed a high level of audit-planning-related information, although the minimum value shows that disclosure was not uniform across all firm-year observations. Nduviri (2022) and Esing'ole et al. (2024) similarly analysed audit-related governance indicators drawn from the published reports of listed Kenyan firms, which shows that such characteristics can be compared across firms and years. The descriptive pattern shows that high audit-planning disclosure coexisted with considerable variation in ROA, but it does not establish whether audit planning caused or improved performance, and inferential tests are therefore required.

Table 3: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ROA	40	-12.70	20.50	1.92	7.90
Audit Planning Index (API)	40	0.20	1.00	0.88	0.17

Source: Secondary Data (2026).

Correlation Analysis

Pearson correlation analysis, whose results are presented in Table 4, showed a negative and weak relationship between audit planning and financial performance. The correlation coefficient between the Audit Planning Index and ROA was $r = -0.244$ with $p = 0.129$, which indicates that higher audit-planning index values were associated with lower ROA in the sample, but the probability value exceeded the 0.05 threshold. The correlation result therefore does not provide sufficient statistical evidence of a significant relationship between audit planning and financial performance. Saunders et al. (2023) cautioned that correlation describes association and not causation, and Arkhangelsky and Imbens (2024) similarly noted that panel associations may reflect unobserved factors that move with both variables. The finding should also be interpreted in light of the small sector-specific panel, since a coefficient of this magnitude would require a larger number of observations to reach conventional significance. A weak, statistically insignificant association is not unusual in the governance literature, since Nduviri (2022) reported that audit committee gender diversity was statistically insignificant for the performance of listed Kenyan manufacturers, and Esing'ole et al. (2024) indicated that it is the strength of committee reporting, and not its mere existence, that distinguishes stronger oversight.

Table 4: Pearson Correlation Matrix

Variables	ROA	API
ROA	1.000	-0.244
API	-0.244	1.000

Source: Secondary Data (2026). Note: $n = 40$; the correlation between API and ROA is not significant at the 0.05 level ($p = 0.129$).

Regression Analysis

Simple linear regression was conducted to determine whether audit planning significantly predicted financial performance as measured by ROA. The model summary in Table 5 shows $R = 0.244$ and $R^2 = 0.060$, so that audit planning accounted for approximately 6.0 percent of the observed variation in ROA, while the adjusted R^2 of 0.035 indicates that about 3.5 percent of the variation remained explained after adjustment for the model parameters. In terms of effect size, the R^2 corresponds to a Cohen's f^2 of roughly 0.06, which is small and well below the 22 percent of variation that Nduviri (2022) attributed to audit committee characteristics jointly. The ANOVA result in Table 6, $F(1, 38) = 2.409$ with $p = 0.129$, shows that, since the p-value was greater than 0.05, the regression model was not statistically significant. Baltagi (2021) explained that in a single-predictor model the F-statistic equals the square of the t-statistic, and this identity holds here, since $t = -1.552$ and 1.552^2 is approximately 2.409. The standard error of estimate of 7.76 percentage points is large relative to the explained variation, which reflects the wide dispersion of ROA documented in Section 4.1.

Table 5: Regression Model Summary

R	R²	Adjusted R²	Std. Error of Estimate
0.244	0.060	0.035	7.76

Source: Secondary Data (2026). Predictor: (Constant), Audit Planning Index. Dependent variable: ROA.

Table 6: ANOVA for Audit Planning Model

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	145.056	1	145.056	2.409	0.129
Residual	2287.740	38	60.204		
Total	2432.796	39			

Source: Secondary Data (2026).

Table 7 presents the regression coefficients. The unstandardized coefficient for audit planning was $B = -11.069$ with a standard error of 7.131, a standardized beta of -0.244 , $t = -1.552$ and $p = 0.129$, and the constant was 11.665 ($t = 1.824$, $p = 0.076$). The negative coefficient indicates that, within the sample, an increase in the audit-planning index was associated with a decrease in ROA; for illustration, a 0.10 increase in the index corresponds to a decline of about 1.11 percentage points in model-implied ROA. The 95 percent confidence interval for B, approximately -25.51 to 3.37 , includes zero, which confirms that the data are compatible with a negative effect, no effect or a modest positive effect. Because the relationship was not statistically significant, the coefficient should not be interpreted as evidence that greater audit planning reduces financial performance. Kalita and Tiwari (2025), who reported a positive audit fee effect on ROA, analysed fifty firms over a decade, and Alzeban (2020) analysed 119 listed companies, so that a sample of 40 observations offers limited statistical power to detect modest effects. It is also possible that the few observations with low index values and high ROA exert disproportionate leverage on the fitted line, a possibility that further research with a larger panel could examine.

Table 7: Regression Coefficients (Dependent Variable: ROA)

Variable	B	Std. Error	Beta	t	Sig.
Constant	11.665	6.394		1.824	0.076
Audit Planning Index (API)	-11.069	7.131	-0.244	-1.552	0.129

Source: Secondary Data (2026).

Summary of Hypothesis Testing

The hypothesis H_{01} stated that audit planning has no statistically significant effect on the financial performance of Construction and Allied Firms listed at the NSE, Kenya. Since $p = 0.129$ was greater than 0.05, H_{01} was not rejected, as summarized in Table 8. The results therefore provide three main observations. First, audit-planning disclosure was generally high, with a mean API of

0.88. Second, the association between the Audit Planning Index and ROA was weak and negative. Third, neither the correlation nor the regression model was statistically significant at the five percent level. Saunders et al. (2023) advised that failure to reject a null hypothesis indicates insufficient evidence of an effect rather than proof of its absence, and Baltagi (2021) similarly cautioned against equating a non-significant coefficient with a true value of zero. The evidence therefore does not support a statistically significant relationship between audit planning and financial performance for the firms and period examined.

Table 8: Summary of Hypothesis Testing Results

Hypothesis	Statistic	Decision
H ₀₁ : Audit planning has no statistically significant effect on the financial performance of Construction and Allied Firms listed at the NSE.	$B = -11.069$; $\beta = -0.244$; $t = -1.552$; $p = 0.129$	Not rejected

Source: Secondary Data (2026).

Discussion of Findings

The objective of the study was to assess the effect of audit planning on the financial performance of Construction and Allied Firms listed at the NSE, Kenya. The results showed a weak negative relationship between audit planning and ROA and no statistically significant regression effect, which suggests that the presence or disclosure of audit-planning practices did not, by itself, correspond to measurable differences in financial performance. This finding differs from the expectation in parts of the literature. Apandi et al. (2022) emphasized the role of good audit planning in risk assessment and audit effectiveness, Apreku-Djan et al. (2022) reported findings supporting the value of risk-focused audit approaches, and Kalita and Tiwari (2025) established a significant positive relationship between audit fees and ROA in South Asia. Those perspectives would imply that stronger planning should contribute to better financial outcomes, yet the present evidence does not confirm this expectation in the Kenyan construction and allied setting. The difference may partly reflect the nature of the indicators, since meeting counts, committee size and fees measure governance inputs and not the quality of risk-based planning.

One possible explanation is that audit planning and financial performance are connected through an implementation chain. A plan can identify a high-risk area, but the financial benefit depends on whether the audit is effectively executed, whether findings reach the appropriate decision makers, whether management implements the recommendations and whether corrective action changes operating behaviour. Alzeban (2023) demonstrated precisely this point by showing that firm performance was higher where a larger proportion of internal audit recommendations was implemented, and Turetken et al. (2020) similarly pointed out that internal audit effectiveness rests on factors beyond the formal function. A disclosure-based index captures the presence of planning-related information but not the depth, quality or follow-through of implementation. The finding is also consistent with the systems perspective, because planning is one component of an

organizational system in which project execution, cost management, financing structure and market conditions also shape ROA. As Hamed (2023) observed, internal control mechanisms contribute to sustained performance only within a broader management system, so that planning may be necessary for an effective audit function without being sufficient to generate a measurable change in ROA.

The result can also be interpreted through Agency Theory. Audit planning strengthens monitoring, but its agency-reducing effect depends on whether monitoring leads to the detection and correction of agency-related problems, a condition emphasized by Jensen and Meckling (1976) in their discussion of monitoring costs and by Alzeban (2020) in demonstrating that audit committee strength conditions the contribution of internal audit. If managers do not respond to findings, or if recommendations are not integrated into decision-making, the monitoring mechanism may not produce an observable financial effect. The insignificant result therefore does not mean that planning has no governance value; rather, it indicates that the available data do not provide statistically significant evidence that the measured index independently explains ROA. The result is also relevant to the sector, because construction and allied firms face risks that may not be immediately reflected in annual profitability. As Olurin et al. (2023) and Omede and Saidu (2020) indicated, project quality, safety and materials-price risks materialize over long horizons, so that an audit plan that strengthens procurement controls or contract monitoring may reduce future losses without producing an immediate increase in annual ROA.

The high mean API of 0.88 combined with the insignificant regression result is important. It suggests that widespread disclosure of audit-planning practices did not correspond to significant differences in financial performance, which supports the conclusion that firms should move beyond formal audit planning towards strategic, risk-based and implementation-oriented planning, as envisaged in Standard 9.4 of the Institute of Internal Auditors (2024). The finding should also be interpreted in light of the measurement approach. The Audit Planning Index was constructed from disclosed indicators, and public disclosures may vary in detail between firms and years and may not capture every internal audit activity. Christ et al. (2021) noted that much of what internal audit does, including risk-based planning and agile practices, is difficult to observe from outside the organization, and Nduviri (2022) found that audit committee meeting frequency can be negatively related to performance, which cautions against reading more activity as better governance. Overall, the study adds to the literature by showing that, in the sampled NSE-listed construction and allied firms, audit planning was not statistically associated with ROA over 2016-2025.

Comparison with Prior Kenyan and Regional Studies

The present findings are broadly consistent with Kenyan evidence indicating that formal governance structures do not automatically translate into performance. Nduviri (2022) reported that, among NSE-listed manufacturers, audit committee size, expertise and independence were

positively associated with performance, whereas meeting frequency was negatively and significantly associated with it, and the negative sign obtained here for an index that includes meetings is directionally consistent with that result. Esing'ole et al. (2024) found that the quality of audit committee reports, rather than their existence, distinguished stronger governance among listed manufacturers, which corroborates the argument that disclosed form is an imperfect proxy for substance. In contrast, Ali Osman and Onsiro (2023) and Wekesa and Malenya (2020) reported positive relationships between internal audit practices and performance, but their settings were a county government and a single state-owned company, where internal audit is directly tied to public financial management and where perception-based measures were used. The difference in findings therefore appears to stem from differences in institutional context and in measurement rather than from contradictory underlying mechanisms.

Regional and international evidence points in the same direction when the dimension of internal audit examined is considered. Alzeban (2020) established that the effect of internal audit on performance operated through audit committee independence and expertise in Saudi Arabia and the United Arab Emirates, while Alzeban (2023) showed that the implementation of recommendations drives performance in the United Kingdom. Kalita and Tiwari (2025) found a positive audit fee-ROA relationship, but their sample comprised the largest listed companies in four countries over a longer window, and their finding of diminishing marginal effects of fees suggests that the relationship is not uniform. The pattern across these studies is that significant effects tend to be found where measures capture the substance of audit activity, such as implemented recommendations or committee expertise, whereas indices based on counts and amounts show weaker effects. The present result, obtained for a disclosure-based index in a small Kenyan panel, is therefore consistent with the wider literature and underlines the need for measures that capture the quality and follow-through of audit planning.

CONCLUSION

The study concludes that audit planning did not have a statistically significant effect on the financial performance of Construction and Allied Firms listed at the NSE, Kenya, during the period 2016-2025. Although the sampled firms recorded a relatively high mean Audit Planning Index of 0.88, the relationship with ROA was weak and negative ($r = -0.244$, $p = 0.129$), the regression model was not statistically significant, $F(1, 38) = 2.409$, $p = 0.129$, and the audit-planning coefficient was $B = -11.069$ (standardized $\beta = -0.244$). The conclusion is not that audit planning is irrelevant. Rather, the evidence indicates that formal audit-planning practices, as captured through publicly disclosed indicators, did not independently explain financial performance in the sampled firms. This is consistent with Alzeban (2023), who showed that performance gains arise from the implementation of audit recommendations, and with Turetken et al. (2020), who demonstrated that effectiveness depends on conditions beyond the existence of a formal function. The value of audit planning may therefore depend on implementation, risk alignment, management

response and integration with other governance and operational processes, as the Institute of Internal Auditors (2024) implies by requiring plans to be grounded in a documented risk assessment. The null hypothesis H_{01} was consequently not rejected, and the study contributes sector-specific evidence that disclosure of planning practices should not be mistaken for their effectiveness.

Recommendations

Based on the findings, management and audit committees of construction and allied firms should strengthen the strategic nature of audit planning. Audit plans should be risk-based and aligned with the organization's most significant operational and financial exposures, which in this sector include project cost overruns, procurement risks, contract management, inventory, capital expenditure and the potential misallocation of financial resources. According to the Institute of Internal Auditors (2024), Standard 9.4 requires the plan to rest on a documented assessment of strategies, objectives and risks, and Apandi et al. (2022) reiterated that risk assessment is the foundation of effective planning. Olurin et al. (2023) and Omede and Saidu (2020) indicated that quality, safety and materials-price risks carry significant financial consequences, so that these should feature explicitly in annual audit programmes. Firms should also establish clear mechanisms for monitoring the implementation of audit recommendations, since planning should not end with the preparation of an annual programme. The plan should identify how findings will be followed up, who is responsible for corrective action and how unresolved issues will be escalated to management and the audit committee, as supported by Alzeban (2023), whose evidence links implemented recommendations to higher performance.

Audit planning should be supported by appropriate technology and reliable risk information. Betti and Sarens (2021) pointed out that digitalization is reshaping the internal audit function, and Sobczak (2021) established that the success of robotic process automation depends on implementation approaches and organizational success factors, which implies that technology investment should be accompanied by auditor competence and access to organizational data. Christ et al. (2021) similarly identified information technology, staffing and agile auditing as priority areas for the profession. Audit committees and boards should review whether audit plans address material risks rather than simply assessing whether the annual programme has been completed. Their oversight should focus on the quality of risk assessment, the adequacy of audit resources, the implementation of recommendations and the extent to which internal audit information is used in strategic decision-making, which is consistent with the emphasis of Tumwebaze et al. (2022) on audit committee effectiveness and of Esing'ole et al. (2024) on the substance of committee reports. Committees should also treat the frequency of meetings and the level of audit fees as inputs whose value depends on how they are used, as suggested by Nduviri (2022) and Kalita and Tiwari (2025).

Regulators and professional bodies, including the Capital Markets Authority, the Nairobi Securities Exchange and the Institute of Certified Public Accountants of Kenya, may encourage listed firms to strengthen risk-based internal audit planning and to disclose indicators of its substance, such as the proportion of audit recommendations implemented within agreed timelines. Greater attention can be placed on the effectiveness of internal audit processes rather than on disclosure of their existence alone, a direction that is supported by the global shift towards risk-based planning under the Institute of Internal Auditors (2024) standards. Finally, management should recognize that audit planning is part of a broader performance system. Financial performance is influenced by several internal and external factors, including the construction cycle documented by the Kenya National Bureau of Statistics (2026), so that planning should be integrated with risk management, internal control, finance, project management and governance and not operated as an isolated compliance activity. Hamed (2023) and Adusupalli (2024) both stressed that internal control and internal audit deliver the greatest value when integrated with risk management and compliance strategies.

Suggestions for Further Research

Future studies should examine audit planning in other sectors of firms listed at the NSE to determine whether the relationship is sector-specific. Further research could also examine additional dimensions of audit planning, such as the quality of risk assessment, audit-plan execution, audit coverage, resource adequacy, technology use and the follow-up of audit recommendations, which Alzeban (2023) and Christ et al. (2021) both identify as promising directions for understanding how internal audit creates value. Researchers may use longer longitudinal periods and more advanced panel-data techniques, such as fixed-effects and dynamic panel estimators, where sufficient observations are available, as suggested by Baltagi (2021) and Arkhangelsky and Imbens (2024). A mixed-method or qualitative approach involving internal auditors, audit committee members and finance managers could provide deeper evidence on how audit plans are implemented and why formal planning may or may not translate into financial outcomes, in line with the research designs described by Saunders et al. (2023). Comparative studies between NSE-listed construction and allied firms and similar firms in other African capital markets could also provide additional contextual evidence, particularly given the diversity of audit-related regulation across jurisdictions noted by Eltweri et al. (2020). Finally, studies that incorporate lagged effects of planning on performance would help to establish whether the preventive benefits of audit work, which may not be visible in the same-year ROA, appear in subsequent periods.

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