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BUDGETARY CONTROL TECHNIQUES ADOPTED BY CONSTRUCTION FIRMS IN KADUNA STATE, NIGERIA: AN EMPIRICAL ASSESSMENT

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Abstract
This study investigated the budgetary control techniques adopted by construction firms in Kaduna State, Nigeria. A descriptive survey design was adopted, with structured 5-point Likert questionnaires distributed to 250 built-environment professionals, including Quantity Surveyors, Civil Engineers, Project Managers, Construction Managers, and Architects. A total of 237 valid responses were retrieved, yielding a 94.8% response rate. Data were analysed using descriptive statistics (means, standard deviations, and rankings). Findings revealed a moderate overall adoption of budgetary control techniques (M = 3.41, SD = 1.05). Firms relied heavily on conventional methods, led by Traditional/Incremental Budgeting (M = 4.21), Cash Flow Forecasting (M = 4.08), and Cost and Schedule Variance Analysis (M = 3.86). Intermediate techniques such as Value Engineering (M = 3.42) and Earned Value Management (M = 3.15) recorded moderate usage. Conversely, modern, technology-driven tools like Computer-Aided Cost Tracking (M = 2.84) and Zero-Based Budgeting (M = 2.45) yielded the lowest scores, indicating low-to-moderate uptake. The study provides empirical evidence of a significant adoption gap between traditional and modern budgetary control techniques. It highlights the critical need for construction firms to transition from conventional manual practices to automated, technology-driven financial management systems to enhance cost predictability and project delivery efficiency in an increasingly volatile economic environment.

Keywords: Budgetary Control, Construction Projects, Cost Management, Earned Value Management, Zero-Based Budgeting, Kaduna State, Nigeria

Introduction
The construction industry is a fundamental driver of economic growth, yet it is perpetually plagued by financial inefficiencies and schedule slippages (Deloitte, 2026). Globally, the sector faces unprecedented volatility due to rising material costs, labor shortages, and geopolitical tensions that disrupt supply chains. In Nigeria, the construction sector contributes significantly to the Gross Domestic Product (GDP), yet it remains burdened by systemic inefficiencies. Opatunji (2025) observes that while there is high awareness of techniques like budget monitoring and cost estimating, their actual implementation often falls short, leading to projects exceeding their initial contract sums.

Budgetary control serves as a pivotal management tool within the construction industry, functioning as a systematic process of comparing actual financial performance against pre-established targets to ensure organizational objectives are met (Ibrahim *et al.,* 2022). In the contemporary Nigerian construction landscape, this mechanism has evolved from simple cost-tracking into a sophisticated risk-mitigation strategy designed to combat systemic inefficiencies. Alu *et al.* (2024) argue that effective control systems provide a framework for accountability, allowing project managers in volatile markets like Kaduna State to navigate the iron triangle of cost, time, and quality amidst fluctuating material prices and labor costs.

Kaduna State presents a unique case where construction performance is influenced by both economic and environmental variables. Latest investigations into State Universal Basic Education Board (SUBEB) projects in Kaduna reveal a heavy reliance on traditional planning methods, such as

Bar Charts, which often fail to account for the complexity of modern infrastructure needs (Ikang & Udeagbala, 2025). This methodological lag has contributed to reduced building lifespans and frequent cost escalations. Furthermore, Bala et al. (2025) emphasized that labour shortages and poor working conditions in Kaduna have further strained project budgets, making the need for effective budgetary control even more critical.

Despite the strategic importance of Kaduna as a regional hub, many construction projects in the state suffer from abandonment and failure due to inadequate involvement of professionals and poor monitoring systems. Adagba *et al.* (2023) identified that while security concerns are often cited, the primary drivers of project failure in Kaduna are actually government policy inconsistencies and flawed financial analysis. This study, therefore, seeks to bridge the gap between theoretical budgetary control and its practical, effective implementation in Kaduna State by specifically examining the budgetary control techniques adopted by construction firms operating in the region. The aim of this paper is to identify the budgetary control techniques adopted by construction firms in Kaduna State. The specific objective is to examine the extent of adoption of various budgetary control techniques among construction professionals in the study area

Literature Review

Conceptual Framework of Budgetary Control

Budgetary control is a systematic process of comparing actual financial performance against pre-established targets to ensure organizational objectives are met. According to Ibrahim et al. (2022), the implementation of budgetary control is not merely a clerical exercise but a strategic necessity that directly influences project profitability and structural integrity. Furthermore, Alu et al. (2024) argue that effective control systems provide a framework for accountability, allowing project managers in volatile markets like Kaduna State to navigate the iron triangle of cost, time, and quality amidst fluctuating material prices and labor costs.

Recent empirical evidence suggests that the transition from traditional manual budgeting to digitalized and integrated control techniques is the primary driver of modern project success. Research by Idowu and Isaac (2025) emphasizes that techniques such as Earned Value Management (EVM) and Zero-Based Budgeting (ZBB) are increasingly critical for indigenous firms to remain competitive and avoid the high rate of project abandonment prevalent in the public sector. These studies highlight that while the theoretical foundations of budgetary control remain constant, its practical application is being reshaped by Artificial Intelligence (AI) and real-time data analytics, which allow for proactive rather than reactive financial management.

Budgetary Control Techniques in Construction

Budgetary control techniques reveal a strategic shift from traditional accounting methods toward integrated, real-time performance management systems designed to combat project volatility. According to Ibrahim *et al*. (2022), the implementation of Earned Value Management (EVM) has become a cornerstone for construction firms seeking to synchronize technical scope with financial outlays, allowing for the simultaneous monitoring of cost and schedule variances.

Omotayo *et al.* (2022) argue that in high-inflation environments like Nigeria, the adoption of Zero-Based Budgeting (ZBB) and Target Costing is essential for maintaining project viability. These techniques force a granular re-evaluation of costs at every project phase, effectively eliminating the budget padding and historical inaccuracies that frequently lead to cost overruns in regional infrastructure projects.

The role of digital integration and lean principles in enhancing the effectiveness of these controls has been highlighted by Alu *et al.* (2024), who indicated that the synergy between Variance Analysis and automated data tracking allows firms to move from reactive firefighting to proactive risk

mitigation, significantly reducing the likelihood of project abandonment. Moreover, Idowu and Isaac (2025) recommend that the successful application of these techniques is heavily dependent on the human factor specifically the technical competence of project managers to interpret complex financial data.

Main Budgetary Control Techniques

Earned Value Management (EVM)

Earned Value Management (EVM) is widely recognized in contemporary literature as the most robust technique for integrating project scope, schedule, and cost. Unlike traditional methods that only compare actual versus planned expenditures, EVM utilizes the Earned Value metric to quantify the physical work actually completed against the budget. According to Ibrahim et al. (2022), the implementation of EVM in Nigerian construction projects provides a superior early-warning system, allowing project managers to calculate the Cost Performance Index (CPI) and Schedule Performance Index (SPI).

Despite its technical advantages, recent studies highlight significant barriers to the effective adoption of EVM among indigenous firms. Idowu and Isaac (2025) argue that while EVM offers high precision, its success is heavily dependent on the quality of the initial Work Breakdown Structure (WBS) and the digital literacy of the project team. In the context of Northern Nigeria, the lack of integrated project management software often relegates EVM to a theoretical exercise rather than a real-time control tool.

Variance Analysis

Variance Analysis remains a cornerstone of budgetary control, functioning as a systematic process for identifying deviations between actual performance and the baseline budget. Alu et al. (2024) posit that this technique is essential for maintaining financial discipline in environments characterized by high material price volatility. By breaking down variances into price and usage components, construction firms can determine whether a budget deficit is due to external market inflation or internal site wastage. However, the efficacy of Variance Analysis is often hampered by the reporting lag inherent in manual accounting systems. Bakare and Bello (2022) observe that in many Nigerian construction firms, variances are often analyzed weeks after the costs have been incurred, making corrective action reactive rather than proactive.

Zero-Based Budgeting (ZBB)

Zero-Based Budgeting (ZBB) has gained renewed academic interest as a strategic response to the extreme inflationary pressures currently affecting the Nigerian economy. Unlike traditional incremental budgeting, which adjusts previous figures by a percentage, ZBB requires every cost element to be justified from a zero base for every new project phase. Augustine (2025) observed that ZBB is particularly effective in Kaduna State for curbing budget padding a practice where contractors inflate estimates to hedge against uncertainty.

While ZBB enhances cost accuracy, its implementation is noted for being labor-intensive and time-consuming. Omotayo *et al.* (2022) point out that many small-to-medium-scale construction firms avoid ZBB due to the administrative burden of constant re-justification. However, the study concludes that the long-term benefits, including improved resource allocation and a 15% reduction in non-essential expenditures, far outweigh the initial effort.

Traditional/Incremental Budgeting

Traditional or incremental budgeting remains the most widely used technique in developing economies. This approach involves adjusting previous budget figures by a percentage to arrive at

new budget estimates. While simple to implement, it perpetuates historical inaccuracies and fails to account for changing market conditions. Onyekachi *et al.* (2020) and Babalola *et al.* (2021) reported that construction organizations in developing economies remain heavily tied to traditional, incremental financial controls due to systemic resistance to organizational change and high software acquisition costs.

Cash Flow Forecasting and Analysis

Cash flow forecasting involves projecting the timing and magnitude of cash inflows and outflows over the project lifecycle. Anas *et al.* (2023) identify delayed interim payments as the leading cause of project failure in the Kaduna metropolitan area. When clients, particularly public sector entities, fail to honor payment certificates on time, it triggers a chain reaction: subcontractors are unpaid, labor strikes occur, and material suppliers withdraw credit facilities. Effective cash flow management is thus seen as the lifeblood of construction performance in the North-Central region.

Value Engineering

Value engineering is a systematic method to improve the value of goods or products and services by using an examination of function. In construction, value engineering seeks to achieve the required function at the lowest total cost without compromising quality. Alu *et al.* (2024) argue that in an era of 30% annual inflation for building materials like cement and reinforcement bars, good cost performance is increasingly defined by a firm's ability to utilize value engineering to maintain margins without compromising output.

Flexible Budgeting

Flexible budgeting adjusts for changes in activity levels or volume of work. This technique is particularly useful in construction where project scope may change due to variations. A flexible budget is designed to change with the level of activity, providing a more accurate comparison between actual costs and budgeted costs at the actual level of activity achieved. Omotayo *et al.* (2022) note that flexible budgeting is essential in high-inflation environments where fixed budgets become obsolete quickly.

Computer-Aided/Automated Cost Tracking

Computer-aided cost tracking involves the use of software and digital tools to monitor and control project costs in real-time. Idowu and Isaac (2025) observed that while high-end firms in Nigeria are beginning to explore Building Information Modeling (BIM) for cost control, many indigenous firms in Kaduna still rely on fragmented, manual spreadsheets. This technological inertia results in significant reporting lags, where financial deviations are identified only after they have become irrecoverable.

Curve Analysis

S-Curve analysis is a graphical representation of project costs, progress, or resource usage over time. The S-curve is used to monitor project performance by comparing planned progress with actual progress. Ariyo-Edu and Woli-John (2024) emphasize that liquidity management is as important as the total budget itself, and S-curve analysis helps ensure that the timing of cash inflow matches the expenditure profile of the construction phases.

Periodic Financial Auditing

Periodic financial auditing involves the systematic examination of financial records and statements to ensure accuracy and compliance with established standards. In construction, financial auditing

helps detect irregularities, prevent fraud, and ensure that project funds are used for their intended purposes. Odeyinka and Yusif (2023) highlight that budget padding and the deliberate underestimation of costs to secure contracts are common practices in both public and private sectors, creating a foundation of dishonesty that no control technique can fix without rigorous auditing.

Empirical Review

The construction industry in Kaduna State, Nigeria, faces significant challenges including cost overruns, delays, and project abandonment. While budgetary control is a theoretical panacea for these issues, its effective implementation is often hindered by traditional planning methods, poor communication, and inconsistent funding. Buba (2023) examined factors influencing cost performance in Kaduna State and identified design changes, incorrect planning, and poor financial control on-site as the most critical factors leading to budget deviations. Abani *et al*. (2024) demonstrated that Cost Variance Analysis (CVA) and Earned Value Analysis (EVA) significantly predict financial performance (ROA/ROE) in North-Central Nigeria. Simon-Eigbe et al. (2023) found that internal control by contractors and timely payment from clients are the highest positive influencers of performance in public sector projects in Kaduna State.

A study by Umaru Ali Shinkafi Polytechnic (2020) revealed that in many firms, budgets are prepared but not used during actual execution, making the control process "irrelevant." Akinleye and Fajuyagbe (2022) highlighted that implementing cost management provides timely information that allows for corrective actions before overruns occur. Adetayo (2025) concluded that traditional planning leads to suboptimal results and recommended advanced tools like PERT and 4D Simulation for better control.

Theoretical Framework

This study is anchored on the Contingency Theory of Management Accounting, which posits that there is no universally appropriate accounting system applicable to all organizations in all circumstances. Instead, the design of management accounting systems, including budgetary control techniques, should be contingent upon contextual factors such as environmental uncertainty, organizational structure, and technology (Otley, 2016).

In the context of Kaduna State's construction industry, the contingency theory suggests that the choice and effectiveness of budgetary control techniques depend on the unique economic, environmental, and institutional factors prevalent in the region. The high inflation rates, material price volatility, and payment delays that characterize the Nigerian construction environment necessitate the adoption of more sophisticated, flexible, and technology-driven budgetary control techniques. Firms that align their control systems with these contextual contingencies are more likely to achieve superior project performance.

METHODOLOGY

The study adopts a descriptive survey research design to systematically investigate the budgetary control techniques adopted by construction firms in Kaduna State. According to Buba (2023), quantitative methods are essential in the Kaduna construction context to identify critical factors influencing cost performance through structured instruments.

The population for this study comprises all registered construction firms and professional practitioners operating within Kaduna State. As of late 2025 and entering 2026, there are approximately 427 registered construction companies active in the state, with the majority (300) concentrated within the Kaduna metropolis (Rentech Digital, 2025). This population includes both

indigenous and multinational firms, such as Julius Berger Nigeria Plc, China Civil Engineering Construction Corporation (CCECC), and A.G. Ferrero & Co. Ltd.

For the population of 427, the sample size is 205 professionals based on Krejcie and Morgan (1970) tables. However, for the purpose of questionnaire administration, 250 questionnaires were distributed to account for potential non-response.

This study employed purposive sampling, a non-probability technique used to deliberately select professionals such as quantity surveyors, architects, and site managers who possess specialized knowledge of project financial management (Zaki *et al.,* 2024). This approach was complemented by simple random sampling to ensure that a diverse range of ongoing public and private projects are represented, thereby enhancing the generalisability of findings regarding cost and time performance (Livinus & Akoh, 2025). The instrument of data collection was a structured questionnaire designed on a 5-point Likert scale.

Data were gathered through the administration of structured questionnaires targeting key stakeholders such as project managers, quantity surveyors, and site engineers across selected construction firms in Kaduna. The questionnaires were administered both physically and electronically to enhance accessibility and response rates. Data analysis was conducted using descriptive statistics. Mean scores, standard deviations, and frequency distributions were used to identify patterns and central tendencies within the Kaduna State construction industry. The mean score was calculated to determine the extent of adoption of each budgetary control technique, with a criterion mean of 3.00 used as the decision rule for determining adoption levels.

Reliability refers to the consistency of the measurement instrument over time. For this study, internal consistency was measured using Cronbach's Alpha coefficient, where a value of 0.7 or higher indicates that the survey items are reliably capturing the nuances of budgetary control (Nunnally & Bernstein, 1994). The study prioritised content validity by having the questionnaire reviewed by experts in construction management to ensure the questions align with industry standards in Nigeria (Saunders, Lewis, & Thornhill, 2019).

Results and Findings

Questionnaire Distribution

A total of 250 questionnaires were distributed to target respondents, out of which 239 were returned, representing a high retrieval rate. Upon data cleaning, 237 questionnaires were found valid and suitable for final analysis, yielding an effective response rate of 94.8%. This exceptionally high response rate ensures strong sample representativeness, reduces non-response bias, and provides a robust quantitative foundation for interpreting the study's findings.

Table 1: Questionnaire Response

SN	Questionnaire	Frequency
1	Distributed	250
2	Returned	239
3	Used	237

Demographic Profile of Respondents

The demographic distribution (N = 237) reveals a highly experienced and professionally qualified respondent base. Quantity Surveyors (n = 71, 29.96%), Civil Engineers (n = 58, 24.47%), and Project Managers (n = 52, 21.94%) comprised the majority of participants, with Construction Managers (13.08%) and Architects (10.55%) providing additional representation. A substantial proportion of respondents possessed over 10 years of professional experience (n = 136, 57.38%),

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and the vast majority held higher educational qualifications, predominantly HND/B.Sc (n = 138, 58.23%) and M.Sc/MBA degrees (n = 72, 30.38%). Furthermore, 88.19% (n = 209) were registered members of recognized professional bodies led by COREN (34.60%) and NIQS (27.00%) and were primarily operating within indigenous construction firms (n = 91, 38.40%) and consultancy practices (n = 56, 23.63%).

Table 2: Demographic Profile of Respondents

Demographic Variable	**Classification**	**Frequency**	**Percentage**
Professional Affiliation	Project Manager	52	21.94
	Quantity Surveyor	71	29.96
	Civil Engineer	58	24.47
	Construction Manager	31	13.08
	Architect	25	10.55
	Total	**237**	**100.00**
Experience in Construction	Less than 5 years	33	13.92
	5–10 years	68	28.69
	11–15 years	76	32.07
	16–20 years	38	16.03
	Above 20 years	22	9.28
	Total	**237**	**100.00**
Educational Qualification	OND/NCE	14	5.91
	HND/B.Sc	138	58.23
	M.Sc/MBA	72	30.38
	Ph.D	13	5.49
	Total	**237**	**100.00**
Professional Registration Status	Registered with NIQS	64	27.00
	Registered with COREN	82	34.60
	Registered with ARCON	22	9.28
	Registered with NSE	41	17.30
	Not Registered	28	11.81
	Total	**237**	**100.00**

Budgetary Control Techniques Adopted by Construction Firms in Kaduna State

Table 3: Budgetary Control Techniques Adopted

S/N	**Budgetary Control Technique**	**Mean**	**Std. Deviation**	**Rank**	**Remark**
1	Traditional/Incremental Budgeting	4.21	0.82	1	High Adoption
2	Cash Flow Forecasting and Analysis	4.08	0.88	2	High Adoption
3	Cost and Schedule Variance Analysis	3.86	0.94	3	High Adoption
4	Periodic Financial Auditing	3.79	1.01	4	High Adoption
5	Value Engineering	3.42	1.05	5	Moderate Adoption
6	Flexible Budgeting	3.28	1.10	6	Moderate Adoption

7	Earned Value Management (EVM)	3.15	1.18	7	Moderate Adoption
8	S-Curve Analysis	3.01	1.14	8	Moderate Adoption
9	Computer-Aided/Automated Cost Tracking	2.84	1.22	9	Moderate Adoption
10	Zero-Based Budgeting (ZBB)	2.45	1.15	10	Low Adoption
	Overall Sector Mean	**3.41**	**1.05**		**Moderate Adoption**

Evaluation of budgetary control techniques demonstrated an overall sector mean score of M = 3.41 (SD = 1.05), reflecting a moderate adoption level across construction firms. Traditional/Incremental Budgeting ranked highest (M = 4.21, SD = 0.82), followed by Cash Flow Forecasting and Analysis (M = 4.08, SD = 0.88) and Cost/Schedule Variance Analysis (M = 3.86, SD = 0.94), all exhibiting high adoption levels with tight response consensus. Intermediate techniques such as Value Engineering (M = 3.42, SD = 1.05) and Earned Value Management (M = 3.15, SD = 1.18) recorded moderate usage. Conversely, technology-driven tools like Computer-Aided Cost Tracking (M = 2.84, SD = 1.22) and Zero-Based Budgeting (M = 2.45, SD = 1.15) yielded the lowest mean scores, indicating low-to-moderate uptake and higher response variability. These findings highlight a reliance on conventional accounting practices over automated, modern project management control mechanisms.

Discussion of Findings

The findings of this study reveal that the overall adoption of budgetary control techniques within the Kaduna State construction sector sits at a moderate level. Construction organizations demonstrate a strong reliance on conventional, manual financial management approaches, led by Traditional/Incremental Budgeting and Cash Flow Forecasting. Conversely, modern, technology-driven, and complex techniques remain underutilized, with Computer-Aided Cost Tracking and Zero-Based Budgeting recording the lowest adoption scores.

The dominant reliance on traditional/incremental budgeting and cash flow forecasting alongside the low adoption of automated/computer-aided cost tracking and Zero-Based Budgeting strongly agrees with the empirical observations of Onyekachi *et al.* (2020) and Babalola *et al.* (2021). These scholars similarly reported that construction organizations in developing economies remain heavily tied to traditional, incremental financial controls due to systemic resistance to organizational change and high software acquisition costs.

The moderate adoption of Earned Value Management and Value Engineering suggests that while there is awareness of these techniques, their full implementation remains a challenge. This finding aligns with Idowu and Isaac (2025), who noted that while EVM offers high precision, its success is heavily dependent on the quality of the initial Work Breakdown Structure (WBS) and the digital literacy of the project team. In the context of Northern Nigeria, the lack of integrated project management software often relegates EVM to a theoretical exercise rather than a real-time control tool.

The low adoption of Zero-Based Budgeting is particularly concerning given the high-inflation environment in Nigeria. Omotayo *et al.* (2022) point out that many small-to-medium-scale construction firms avoid ZBB due to the administrative burden of constant re-justification. However, the study concludes that the long-term benefits, including improved resource allocation and a 15% reduction in non-essential expenditures, far outweigh the initial effort.

The finding that Traditional/Incremental Budgeting is the most widely adopted technique is consistent with the literature. Onyekachi *et al.* (2020) and Babalola *et al.* (2021) reported that

construction organizations in developing economies remain heavily tied to traditional, incremental financial controls due to systemic resistance to organizational change and high software acquisition costs. This reliance on incremental budgeting perpetuates historical inaccuracies and fails to account for changing market conditions, contributing to the persistent cost overruns observed in the Nigerian construction industry.

The moderate adoption of Cash Flow Forecasting reflects the recognition among construction firms that liquidity management is critical to project success. Anas *et al*. (2023) identify delayed interim payments as the leading cause of project failure in the Kaduna metropolitan area. When clients, particularly public sector entities, fail to honor payment certificates on time, it triggers a chain reaction: subcontractors are unpaid, labor strikes occur, and material suppliers withdraw credit facilities. Effective cash flow management is thus seen as the lifeblood of construction performance in the North-Central region.

The finding that Periodic Financial Auditing is highly adopted suggests that construction firms recognize the importance of financial oversight. Odeyinka and Yusif (2023) highlight that budget padding and the deliberate underestimation of costs to secure contracts are common practices in both public and private sectors, creating a foundation of dishonesty that no control technique can fix without rigorous auditing.

The moderate adoption of S-Curve Analysis and Flexible Budgeting indicates that while these techniques are known, their application is not yet widespread. Ariyo-Edu and Woli-John (2024) emphasize that liquidity management is as important as the total budget itself, and S-curve analysis helps ensure that the timing of cash inflow matches the expenditure profile of the construction phases. The moderate adoption of flexible budgeting suggests that many firms still rely on fixed budgets that become obsolete quickly in high-inflation environments.

The low adoption of Computer-Aided/Automated Cost Tracking is a significant finding that highlights the digital divide within the Kaduna State construction industry. Idowu and Isaac (2025) observed that while high-end firms in Nigeria are beginning to explore Building Information Modeling (BIM) for cost control, many indigenous firms in Kaduna still rely on fragmented, manual spreadsheets. This technological inertia results in significant reporting lags, where financial deviations are identified only after they have become irrecoverable.

CONCLUSION AND RECOMMENDATIONS

The study successfully sampled a highly competent and professionally balanced group of built-environment practitioners whose extensive field experience and institutional affiliations ensure high reliability and validity in the empirical findings. Construction firms in Kaduna State rely overwhelmingly on traditional, incremental, and cash-based control practices, leaving advanced, automated, and modern cost-tracking management techniques significantly underutilized across the sector.

The findings reveal a clear pattern: while conventional techniques such as Traditional/Incremental Budgeting, Cash Flow Forecasting, and Variance Analysis are widely adopted, modern techniques such as Zero-Based Budgeting, Computer-Aided Cost Tracking, and Earned Value Management remain at moderate to low adoption levels. This adoption gap has significant implications for project performance, particularly in an environment characterized by high inflation and material price volatility.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

1. Construction firms should phase out exclusive reliance on traditional, incremental budgeting in favor of hybrid and integrated financial management systems.

2. Construction firms should invest in capacity building for their project managers and quantity surveyors in the use of modern budgetary control techniques.
3. Professional bodies such as NIQS, COREN, and ARCON should develop continuing professional development (CPD) programs that specifically address modern budgetary control techniques.
4. Government agencies and policymakers should provide incentives for construction firms to adopt modern budgetary control techniques. This could include tax rebates for firms that invest in automated cost-tracking software or subsidies for training programs on Earned Value Management and Zero-Based Budgeting.
5. Construction firms should adopt a phased approach to digital transformation, starting with the implementation of basic automated cost-tracking tools and gradually progressing to more sophisticated systems such as BIM-integrated budgeting and EVM.

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