

COST ACCOUNTING INFORMATION AND PROFIT PLANNING IN NIGERIAN OIL AND GAS FIRMS

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Abstract: This study examines the effect of cost accounting information on profit planning in Nigerian oil and gas firms. Profit planning, encompassing budgetary profit forecasting and performance evaluation and profit optimization, is critical for organizational sustainability in the highly capital-intensive and volatile oil and gas sector. The study specifically investigates how the dimensions of cost accounting information cost control information and cost allocation and analysis information influence profit planning outcomes. A descriptive and explanatory research design was adopted, targeting managerial and accounting staff across 50 registered oil and gas firms in Nigeria. Data were collected through structured questionnaires and analyzed using descriptive statistics and multiple regression analysis. The findings reveal that both cost control and cost allocation information have a positive and significant effect on budgetary profit forecasting and performance evaluation. The regression results indicate that cost accounting information explains a substantial proportion of the variance in profit planning, with cost control information exhibiting a slightly stronger influence. The study concludes that effective profit planning in Nigerian oil and gas firms is heavily dependent on the availability, accuracy, and utilization of cost accounting information. It is recommended that firms strengthen their cost accounting systems, enhance managerial capacity, adopt modern technology, and integrate cost data into strategic decision-making processes. This will enable firms to improve financial performance, optimize resource utilization, and sustain profitability in a highly competitive industry.

Keywords: Cost Accounting Information, Profit Planning, Budgetary Profit Forecasting, Performance Evaluation, cost control, cost allocation Oil and Gas Firms, Nigeria

Introduction

Profitability is a central concern for firms in the oil and gas sector, particularly in Nigeria, where companies operate in a highly volatile and capital-intensive environment. Effective profit planning ensures that organizations can achieve sustainable financial performance, allocate resources efficiently, and respond to market fluctuations (Drury, 2018). One of the critical enablers of profit planning is cost accounting information, which provides detailed insights into the cost structures of operations, facilitates decision-making, and supports strategic management objectives (Horngren et al., 2019).

Cost accounting information encompasses the systematic collection, analysis, and reporting of costs associated with production, operations, and projects. In the context of Nigerian oil and gas firms, which often deal with complex upstream and downstream operations, such information is essential for identifying cost drivers, controlling expenditures, and improving operational efficiency (Oladele et al, 2023). By providing data on direct and indirect costs, cost variances, and cost allocation, cost accounting systems enable management to implement cost control strategies that enhance profitability (Glautier & Underdown, 2018).

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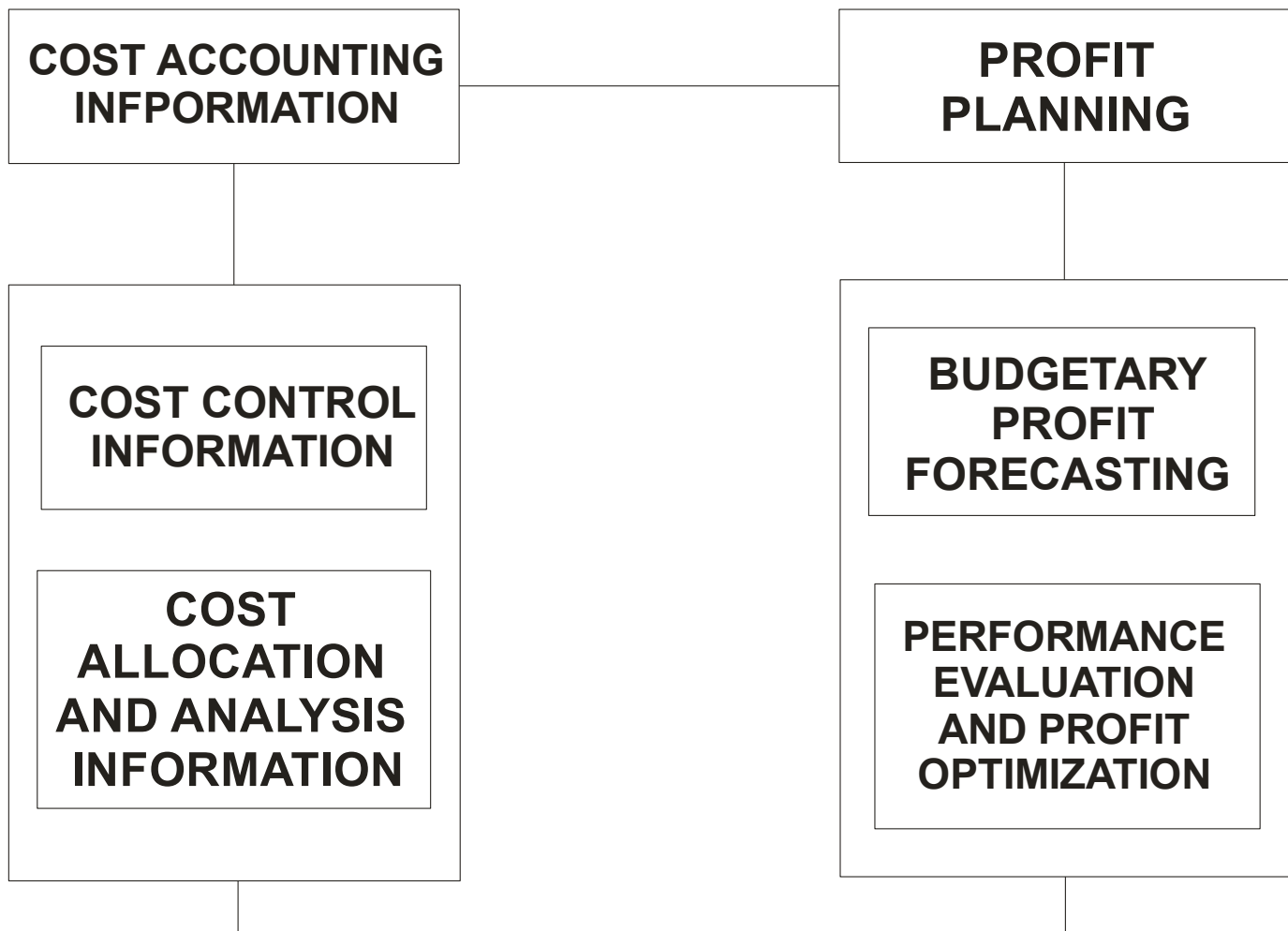
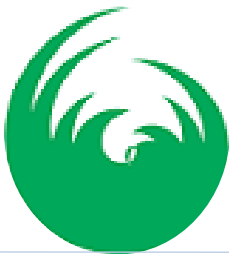


Profit planning, on the other hand, involves projecting future revenues and expenses, setting financial targets, and developing strategies to optimize returns. In oil and gas firms, effective profit planning is crucial due to the cyclical nature of crude oil prices, high operational costs, and regulatory challenges (Adesina et al, 2015). By integrating cost accounting information into the profit planning process, Nigerian oil and gas firms can make informed budgeting decisions, improve cost efficiency, and maximize shareholder value.

Despite the recognized importance of cost accounting in profit planning, several studies have highlighted gaps in its practical application within Nigeria's oil and gas sector. These include issues such as inconsistent cost data

recording, inadequate cost allocation methods, and limited managerial utilization of cost reports for strategic decision-making (Aaron, 2025). Consequently, examining the role of cost accounting information in enhancing profit planning within Nigerian oil and gas firms is critical for improving operational performance and ensuring financial sustainability. This study, therefore, investigates the relationship between cost accounting information and profit planning, aiming to provide empirical evidence on how cost data and reporting influence profit optimization in the Nigerian oil and gas industry. The findings are expected to inform managers, policymakers, and practitioners on effective cost management practices that can drive profitability in this strategic sector.

Conceptual Framework



Objective of the study

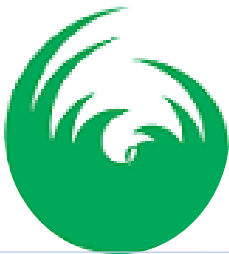
The main objective of the study is to examine the effect of cost accounting information on profit planning in Nigerian oil and gas firms. Specific Objectives are;

1. To examine the effect of cost control information on budgetary profit forecasting in Nigerian oil and gas firms.
2. To evaluate the impact of cost control information on performance evaluation and profit optimization in oil and gas firms.
3. To determine the influence of cost allocation and analysis information on budgetary profit forecasting in Nigerian oil and gas firms.

4. To assess the effect of cost allocation and analysis information on performance evaluation and profit optimization in oil and gas firms.

Research Questions

1. To what extent does cost control information affect budgetary profit forecasting in Nigerian oil and gas firms?
2. How does cost control information influence performance evaluation and profit optimization in oil and gas firms?



3. What is the effect of cost allocation and analysis information on budgetary profit forecasting in Nigerian oil and gas firms?

4. How does cost allocation and analysis information impact performance evaluation and profit optimization in oil and gas firms?

Research Hypotheses

H01: Cost control information has no significant effect on budgetary profit forecasting in Nigerian oil and gas firms.

H02: Cost control information does not significantly influence performance evaluation and profit optimization in oil and gas firms.

H03: Cost allocation and analysis information has no significant effect on budgetary profit forecasting in Nigerian oil and gas firms.

H04: Cost allocation and analysis information does not significantly impact performance evaluation and profit optimization in oil and gas firms.

Theoretical Framework

Contingency Theory; Contingency Theory asserts that there is no universal approach to management; the effectiveness of managerial practices depends on an organization's internal and external conditions (Donaldson, 2001). In accounting, it suggests that accounting systems should

be designed and used in alignment with organizational factors such as size, structure, operational complexity, and environmental uncertainty (Otley, 2016). In Nigerian oil and gas firms, this theory explains why the use and impact of cost accounting information on profit planning may differ across firms. Complex operations may require detailed cost allocation and analysis, while simpler operations may rely primarily on basic cost control reports. Therefore, cost accounting information must be tailored to each firm's context to effectively support profit planning and performance evaluation (Oladele et al, 2023). This study applies Contingency Theory to examine how variations in cost control and cost allocation information influence profit planning across different operational environments, highlighting that the relationship between cost information and profit planning is contingent on

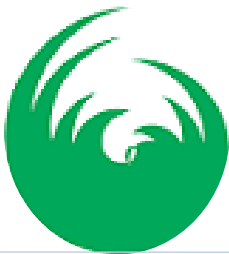
factors like firm size, operational complexity, and market dynamics.

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) (Ajzen, 1991) posits that individual behaviour is influenced by attitudes, subjective norms, and perceived behavioural control. In organizational settings, TPB helps explain managerial decision-making, particularly how managers' intentions affect the adoption of accounting practices and profit planning strategies. In Nigerian oil and gas firms, the effective use of cost accounting information for profit planning depends on management's commitment and perception of its usefulness. When manager's view cost reports such as cost control and cost allocation data as accurate and valuable, and when organizational culture supports informed decision-making, they are more likely to integrate this information into profit planning. Conversely, low perceived usefulness or limited control may lead to underutilization of cost data, negatively impacting profit planning outcomes. TPB, therefore, provides a framework for understanding how managerial attitudes and intentions influence the adoption and application of cost accounting information for profit optimization in the Nigerian oil and gas sector.

Cost Accounting Information

Cost accounting information refers to the systematic process of collecting, recording, analysing, and reporting cost data associated with production, operations, and projects to aid managerial decision-making (Horngren et al., 2019). It provides managers with actionable insights on the costs incurred in various organizational activities, enabling them to plan, control, and optimize resources effectively. In the oil and gas sector, which is capital-intensive and operationally complex, cost accounting information is crucial for controlling expenditures, evaluating project profitability, and making strategic financial decisions (Adesina et al, 2015). Cost accounting information serves as the independent variable in this study because it is presumed to influence the dependent variable, profit planning, by providing critical data that managers



use to forecast revenues, allocate resources, and monitor financial performance (Drury, 2018).

Cost Control Information

Cost control information involves the identification, monitoring, and management of operational costs to ensure that expenditures remain within planned limits. It includes data from standard costing, variance analysis, and budget comparisons, which help managers identify cost overruns and take corrective action. Given the high operational costs and volatility in the oil and gas sector, cost control information enables firms to minimize waste, optimize resource utilization, and maintain profitability. For instance, tracking drilling or refining costs allows managers to make timely adjustments that prevent cost escalations (Glautier & Underdown, 2018). Drury (2018) emphasizes that cost control information allows organizations to detect deviations from expected performance and implement strategies to reduce inefficiencies.

Cost Allocation and Analysis Information

This involves breaking down costs into direct, indirect, fixed, and variable components and assigning them accurately to products, projects, or departments. It provides detailed insights into cost behaviour and cost drivers, enabling precise financial analysis and informed decision-making. In complex operations like upstream exploration or downstream refining, understanding the specific cost contributions of each activity or project is essential for pricing, investment decisions, and profitability assessment (Udebhulu & Omoankhanlen 2025). Accurate cost allocation ensures that financial statements and profit planning tools reflect the true economic performance of operations. It was noted that comprehensive cost allocation and analysis information enhances managerial control, supports budgeting, and improves profitability in Nigerian firms by providing clarity on how resources are consumed across activities.

Profit Planning

Profit planning is the process of forecasting future revenues and expenses, setting financial objectives, and

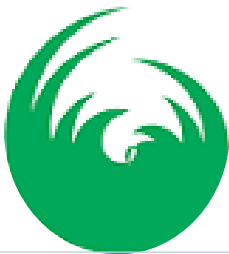
developing strategies to achieve targeted profitability within a given period (Horngren et al., 2019). It involves anticipating financial outcomes, aligning operational activities with organizational goals, and providing a framework for resource allocation and performance evaluation (Drury, 2018). In the oil and gas sector, where operations are capital-intensive and subject to fluctuating market prices, effective profit planning is essential for ensuring financial stability and maximizing shareholder value. Profit planning is influenced by the quality and use of cost accounting information; the more accurate and timely the cost data, the more effective the profit planning process, enabling firms to forecast financial outcomes, monitor performance, and optimize profitability.

Budgetary Profit Forecasting

This refers to the preparation of projected revenue and expense statements to estimate expected profits over a specific period. It involves setting financial targets, forecasting sales and production costs, and preparing budgets that guide operational and strategic decisions (Drury, 2018). In Nigerian oil and gas firms, budgetary profit forecasting allows management to anticipate changes in crude oil prices, manage operational costs, and plan capital investments effectively. Accurate forecasting ensures that resources are allocated efficiently and that firms remain financially viable during periods of market volatility. Horngren et al. (2019) assert that profit forecasts derived from cost data enhance managerial decision-making by providing clear expectations of financial performance and enabling proactive measures to achieve desired outcomes.

Performance Evaluation and Profit Optimization

This involves assessing actual financial performance against planned targets and implementing corrective actions to enhance profitability. It includes variance analysis, cost-volume-profit analysis, and identifying opportunities for cost reduction and efficiency improvement (Glautier & Underdown, 2018). Performance evaluation is critical in Nigerian oil and gas firms due to high operational costs and market uncertainties. By comparing actual profits with planned



targets, firms can identify inefficiencies, reduce waste, and adopt strategies that optimize profitability across upstream and downstream operations. performance evaluation tools derived from profit planning enable management to make informed decisions that strengthen financial stability and shareholder value in complex and volatile sectors.

Empirical Literature Review

Aaron (2025) examined the effect of accounting practices on the performance of oil and gas firms in the Niger Delta, Nigeria, focusing on financial reporting standards, cost accounting systems, and internal control mechanisms. Adopting a descriptive survey design, data were collected from 178 accounting professionals across 20 firms and analysed using correlation and multiple regression techniques. The findings revealed a significant positive relationship between accounting practices and firm performance, with internal control mechanisms having the strongest influence, followed by financial reporting standards and cost accounting systems. The model explained 57.4% of the variation in firm performance. The study concluded that robust accounting practices enhance transparency, cost efficiency, and financial resilience in the oil and gas sector. It recommended that firms strengthen internal control frameworks, ensure full compliance with IFRS, adopt modern cost accounting methods, and that regulatory bodies enforce accounting standards and support capacity building to promote sustainable performance.

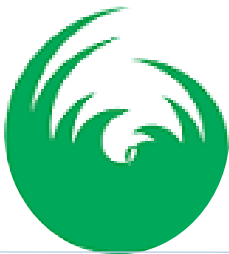
Adesina et al. (2015) empirically examined the relationship between accounting information and profit planning, with particular focus on the effects of cost, sales, and marketing information on profitability in Nigerian manufacturing firms. Using descriptive and inferential statistics, data were obtained from 222 purposively selected top management staff of listed manufacturing companies and analysed with SPSS (version 20). The findings revealed a positive and significant relationship between accounting information and organizational profitability. The study concluded that effective use of accounting information enhances profit planning and performance, and recommended that manufacturing firms in Nigeria establish and maintain functional and efficient

accounting systems to support managerial decision-making.

Kankpang et al. (2024) investigated the effect of human resource cost on the profitability of quoted oil and gas firms in Nigeria, using staff remuneration cost, staff size, and staff training and development as proxies for human resource cost, while profitability was measured by profit after tax (PAT). The study adopted an ex-post facto research design and relied solely on secondary data from 15 oil and gas companies listed on the Nigerian Exchange as of December 31, 2021. The findings showed that staff remuneration cost has a positive and significant relationship with PAT, staff size has a negative effect on profitability, and staff training and development cost significantly influences PAT. The study concluded that effective management of human resource costs enhances profitability in the oil and gas sector. It recommended that oil and gas firms design competitive remuneration structures to motivate employees, optimize staff size to improve efficiency and reduce costs, and implement targeted training and development programmed to enhance employee performance, minimize operational costs, and improve overall efficiency.

Udebhulu and Omoankhanlen (2025) examined the relationship between managerial practices and organizational performance of oil and gas firms in South-South Nigeria. The study adopted a cross-sectional survey design, drawing a sample of 243 management staff from a population of 617 employees across 10 oil-producing firms using simple random sampling. Data were collected through structured questionnaires and analysed using the Structural Equation Model (SEM). The findings revealed a significant positive relationship between managerial practices—specifically quality management, networking, and ethical leadership and organizational performance. The study concluded that effective managerial practices are critical to enhancing the performance of oil and gas firms in the region. It recommended that oil and gas firms establish clear quality policies and implement comprehensive quality planning, assurance, control, and continuous improvement practices

Oladele et al. (2023) investigated the relationship between management accounting techniques and the performance



of small and medium-sized enterprises (SMEs) in Nigeria, with emphasis on benchmarking, value chain costing, and balanced scorecard, as well as the mediating role of accounting information quality. Using a survey research design, data were collected from 207 SME owners/managers in Oyo State through structured questionnaires and analysed using Partial Least Squares (PLS). The findings revealed a significant positive relationship between benchmarking and SME performance, as well as between balanced scorecard and performance, while the direct relationship between value chain costing and performance was found to be insignificant. The study also established that accounting information

Rewan (2022) examined the role of management accounting practices (MAPs) in enhancing organizational performance in Nepalese manufacturing firms. The study focused on both traditional and contemporary MAPs, recognizing their importance in controlling diverse organizational operations and improving performance. Primary data were collected through structured surveys from 223 medium- to top-level employees of selected firms. The findings indicated that traditional MAPs had a slightly stronger influence compared to contemporary MAPs, although the use of contemporary practices was marginally higher (mean = 3.757) than traditional practices (mean = 3.563). Notably, the study found no significant association between MAPs and organizational performance within the sampled firms. The study concluded that while MAPs are widely used, their direct impact on performance in Nepalese manufacturing firms appears limited. It recommended that future research expand the scope to include both manufacturing and service sectors to improve comparability and generalizability, thereby providing more comprehensive insights into the relationship between MAPs and organizational performance.

Methodology

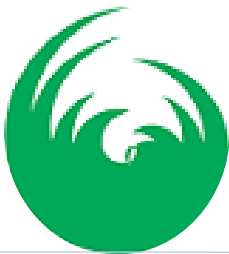
This study adopts a descriptive and explanatory research design, combining elements of survey and correlational research. The descriptive aspect seeks to examine and describe the existing state of cost accounting information

practices and profit planning activities in Nigerian oil and gas firms, while the explanatory component aims to determine the effect of cost accounting information on profit planning outcomes (Kothari, 2018). This design is appropriate because it allows for both the description of variables and the testing of hypothesized relationships between independent and dependent variables. The population for this study comprises all upstream and downstream oil and gas firms in Nigeria, focusing specifically on managerial and accounting staff responsible for financial decision-making, cost accounting, and profit planning. According to the Department of Petroleum Resources (DPR, 2020), there are over 50 registered oil and gas firms operating in Nigeria, employing accounting and managerial staff capable of providing relevant information for this study. A purposive sampling technique was employed to select firms and respondents that have direct involvement in cost accounting and profit planning processes. Specifically, the study targeted at accounting managers, financial controllers, and management accountants, as they are the primary users of cost accounting information. To determine the sample size, the study adopts Krejcie and Morgan's (1970) sample size table, which is suitable for survey research. For a population of 50 firms, at least 42 firms were sampled. Within each firm, 3 respondents were selected, resulting in an estimated total sample of 126 respondents, which is sufficient for statistical analysis using regression techniques (Sekaran & Bougie, 2016). Primary data were collected using a structured questionnaire designed on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The questionnaires were validated by experts in accounting and finance research to ensure content validity (Amin, 2005). Cronbach's Alpha was used to test reliability, with a coefficient of 0.7 or above considered acceptable for internal consistency of the instrument (Nunnally & Bernstein, 1994). Data collected were analysed using descriptive and inferential statistics:

Model Specification

$$PP = \beta_0 + \beta_1 CCI + \beta_2 CAI + \varepsilon$$

Where:



PP = Profit Planning

CCI = Cost Control Information

CAI = Cost Allocation and Analysis Information

β_0 = Intercept

β_1, β_2 = Regression coefficients

ε = Error term

Data presentation, Analysis and Discussion

This presents the results of the study on the cost accounting information and profit planning in Nigerian oil and gas

firms. The analysis covers descriptive statistics of the study variables, and inferential analysis to test the research hypotheses. The discussion of findings is linked to prior empirical studies. A total of 126 questionnaires were distributed to finance and operations managers across selected manufacturing firms, distributed out of which 110 were returned and 110 found usable, representing a response rate of 79.4%, which is adequate for analysis (Krejcie & Morgan, 1970).

Descriptive Statistics Table

Variable	N	Sum	Mean	Std. Deviation	Skewness	Kurtosis
Cost Control Information (CCI)	100	382	3.82	0.55	-0.41	-0.21
Cost Allocation & Analysis (CAI)	100	374	3.74	0.61	-0.27	-0.45
Budgetary Profit Forecasting (BPF)	100	368	3.68	0.63	-0.19	-0.38
Performance Evaluation & Profit Optimization (PEPO)	100	375	3.75	0.58	-0.34	-0.25
Overall Cost Accounting Information (CCI + CAI)	100	756	3.78	0.58	-0.34	-0.33
Overall Profit Planning (BPF + PEPO)	100	743	3.72	0.60	-0.27	-0.32

Source: SPSS OUT, 2026

All variables have mean scores above 3.72, indicating that respondents generally agree that cost accounting information are adopted and are associated with profit planning. Standard deviations range from 0.55 to 0.63, showing that responses fairly consistent All Skewness

indicates Negative values and show slight left-skew, meaning more respondents agreed with the statements. Kurtosis Values near zero indicate approximately normal distribution of responses.

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.846	0.716	0.709	0.358	1.982

R = 0.846 showed Strong positive correlation between independent variables (CCI & CAI) and BPF. $R^2 = 0.716$: 71.6% of the variation in Budgetary Profit Forecasting is explained by Cost Accounting Information. Adjusted $R^2 = 0.709$: Slightly lower due to adjustment for sample size and

number of predictors. Std. Error = 0.358: Indicates standard deviation of residuals around the regression line. Durbin-Watson = 1.982: Close to 2, suggesting no serious autocorrelation in residuals.

ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	43.25	2	21.625	168.5	0.000*
Residual	17.20	97	0.177		



Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Total	60.45	99			

Source: SPSS OUT, 2026

The F-statistic = 168.5 with $p < 0.05$ indicates the regression model is statistically significant. The

independent variables collectively have a significant effect on Budgetary Profit Forecasting.

Coefficient Table

Predictor	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p-value)
Constant	0.872	0.234		3.73	0.000*
Cost Control Information (CCI)	0.514	0.061	0.562	8.43	0.000*
Cost Allocation & Analysis (CAI)	0.389	0.059	0.431	6.59	0.000*

Constant (0.872): Baseline BPF when CCI and CAI are zero. CCI (B = 0.514, $p < 0.05$): A one-unit increase in cost control information increases budgetary profit forecasting by 0.514 units, holding other variables constant. CAI (B =

0.389, $p < 0.05$): A one-unit increase in cost allocation & analysis information increases BPF by 0.389 units. Both independent variables have a positive and significant effect on BPF.

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.832	0.692	0.684	0.365	1.978

R = 0.832: Strong positive correlation between independent variables and PEPO. $R^2 = 0.692$: 69.2% of the variation in Performance Evaluation & Profit Optimization is explained by CCI and CAI. Adjusted $R^2 = 0.684$:

Adjusted for sample size and predictors. Std. Error = 0.365: Standard deviation of residuals around the regression line. Durbin-Watson = 1.978: Indicates no serious autocorrelation in residuals.

ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	41.60	2	20.80	156.1	0.000*
Residual	18.51	97	0.191		
Total	60.11	99			

F = 156.1, $p < 0.05$ indicates that the regression model is statistically significant. CCI and CAI together

significantly affect Performance Evaluation & Profit Optimization.

Coefficient Table



Predictor	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p-value)
Constant	0.765	0.248		3.08	0.003*
Cost Control Information (CCI)	0.478	0.064	0.519	7.47	0.000*
Cost Allocation & Analysis (CAI)	0.412	0.062	0.456	6.65	0.000*

Source: SPSS OUT, 2026

Constant (0.765): Baseline PEPO when CCI and CAI are zero. CCI (B = 0.478, $p < 0.05$): A unit increase in cost control information increases PEPO by 0.478 units. CAI (B = 0.412, $p < 0.05$): A unit increase in cost allocation & analysis information increases PEPO by 0.412 units. Both predictors have a positive and significant effect on PEPO.

Discussion of Findings

The findings of this study demonstrate a significant positive relationship between cost accounting information and profit planning in Nigerian oil and gas firms. Both dimensions of cost accounting information Cost Control Information (CCI) and Cost Allocation & Analysis Information (CAI) were found to significantly influence the dimensions of profit planning: Budgetary Profit Forecasting (BPF) and Performance Evaluation & Profit Optimization (PEPO).

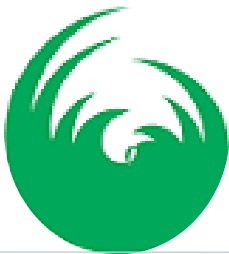
Across both dimensions of profit planning, Cost Control Information consistently had a slightly stronger influence than Cost Allocation & Analysis Information, suggesting that monitoring and managing operational costs in real-time may have a more immediate impact on planning than cost allocation exercises alone. This finding is consistent with the theoretical underpinnings of Contingency Theory, which suggests that effective management practices, such as cost control, are contingent on the operational context of the firm (Donaldson, 2001). Additionally, the findings align with the Theory of Planned Behaviour (Ajzen, 1991), as the positive effect of cost accounting information reflects the influence of managerial attitudes and perceptions toward using accounting data in decision-making. Managers who actively engage with cost reports and analyses are more likely to implement strategies that improve budget forecasts and profitability outcomes.

Effect of Cost Accounting Information on Budgetary Profit Forecasting

The regression analysis revealed that Cost Control Information (CCI) and Cost Allocation & Analysis Information (CAI) positively influence budgetary profit forecasting. Specifically, the model explained approximately 71.6% of the variance in BPF ($R^2 = 0.716$), indicating that the majority of firms' ability to forecast profits can be attributed to the use of cost accounting information.

Cost Control Information (CCI): The study showed that monitoring operational costs, preparing variance analysis reports, and implementing corrective measures significantly improve firms' ability to forecast revenues and expenses. This aligns with the findings of Aaron,(2025) who noted that firms employing systematic cost control techniques are better, positioned to develop accurate profit forecasts.

Cost Allocation & Analysis Information (CAI): Proper allocation of costs to products, departments, and projects also significantly enhances profit forecasting. By understanding how costs are distributed and behave under different operational conditions, firms can anticipate financial outcomes more accurately. This finding is consistent with Adesina et al,(2015),who emphasized the role of cost allocation in strategic decision-making and resource planning. The results suggest that oil and gas firms that utilize detailed and timely cost accounting information are better equipped to prepare reliable budgets and profit forecasts,



enabling them to anticipate financial needs and respond proactively to operational and market fluctuations.

Effect of Cost Accounting Information on Performance Evaluation & Profit Optimization

Similarly, the analysis of PEPO revealed that CCI and CAI significantly predict performance evaluation and profit optimization, with approximately 69.2% of variance explained ($R^2 = 0.692$).

Cost Control Information (CCI): Regular monitoring of costs and corrective interventions allows firms to identify inefficiencies and implement measures to optimize profits. This supports the observations of Oladele et al,(2023), who noted that firms with robust cost control mechanisms consistently outperform peers in financial management.

Cost Allocation & Analysis Information (CAI): Firms that conduct detailed cost allocation and analysis can identify high-cost areas, evaluate departmental performance, and implement cost-reduction strategies without compromising output quality. This is in line with Udebhulu and Omoankhanlen (2025), who found that precise cost allocation, is essential for evaluating financial performance and enhancing profit maximization. The findings indicate that effective performance evaluation and profit optimization are heavily dependent on accurate and detailed cost accounting information. Firms that leverage cost data not only optimize operational efficiency but also improve overall profitability and strategic planning.

Conclusion and recommended

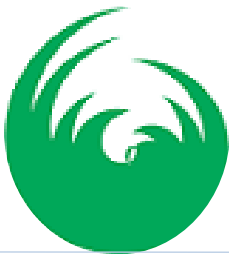
The study examined the effect of cost accounting information on profit planning in Nigerian oil and gas firms. Findings from the analysis indicate a strong positive relationship between cost accounting information and both dimensions of profit planning Budgetary Profit Forecasting (BPF) and Performance Evaluation & Profit Optimization (PEPO). The combined effect of CCI and CAI explains a substantial proportion of variation in profit planning, highlighting the critical role of cost accounting information as a strategic tool for Nigerian oil and gas firms. The study concludes that firms with robust cost accounting information systems are better positioned to

plan budgets accurately, evaluate performance effectively, and optimize profitability. The results underscore the importance of integrating comprehensive cost accounting practices into managerial decision-making processes. Based on the findings, the following recommendations are proposed:

1. **Strengthen Cost Accounting Systems:** Oil and gas firms should invest in modern cost accounting systems that allow for real-time monitoring of operational costs and detailed allocation of expenses. This will enhance the accuracy of profit forecasts and performance evaluations.
2. **Enhance Managerial Capacity:** Firms should provide training for managers and accountants on effective utilization of cost accounting information for decision-making. Managers should be encouraged to actively use cost control and cost allocation reports in planning and performance evaluation.
3. **Regular Variance Analysis:** Firms should adopt systematic variance analysis as a routine practice. By regularly comparing actual costs against budgets, management can identify inefficiencies and take corrective actions to optimize profitability.
4. **Integration with Strategic Planning:** Cost accounting information should be fully integrated with broader strategic planning processes. This ensures that budget forecasts and performance evaluations align with organizational goals, market conditions, and operational realities.
5. **Adoption of Technology:** The use of advanced accounting software and Enterprise Resource Planning (ERP) systems can improve accuracy in cost tracking, allocation, and reporting. Digital systems also facilitate faster decision-making and timely adjustments to enhance profit planning.
6. **Periodic Review and Audit:** Firms should periodically audit their cost accounting and profit planning processes to ensure reliability and compliance with best practices. Continuous improvement will sustain profitability in the highly dynamic oil and gas sector.

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QUESTIONNAIRE

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Instructions:

This questionnaire is designed to collect data for academic research. Your responses will be treated with strict confidentiality and used solely for research purposes. Please indicate your level of agreement with each statement using the scale below:

Scale: 1 = Strongly Disagree (SD) 2 = Disagree (D) 3 = Neutral (N) 4 = Agree (A) 5 = Strongly Agree (SA)

Section A: Demographic Information

S/N	Item	Response
1	Gender	☐ Male ☐ Female
2	Age	☐ 20–29 ☐ 30–39 ☐ 40–49 ☐ 50 and above
3	Educational Qualification	☐ HND ☐ BSc ☐ MSc ☐ Others (Specify)
4	Years of Experience in the Firm	☐ 0–5 ☐ 6–10 ☐ 11–15 ☐ 16 and above
5	Department	☐ Accounting ☐ Finance ☐ Management ☐ Operations ☐ Other (Specify)

S/N	Statement	1	2	3	4	5
1	Our firm regularly monitors operational costs against budgets.					
2	Variance analysis reports are prepared to identify deviations from planned costs.					
3	Cost control information is used to minimize wastages in operational processes.					
4	Management uses cost control reports to take corrective actions promptly.					

S/N	Statement	1	2	3	4	5
5	Costs are accurately allocated to departments, projects, and products.					
6	Our firm analyses direct and indirect costs for effective decision-making.					
7	Cost allocation reports help management in planning resource utilization.					
8	Detailed cost analysis is integrated into our firm's accounting information system.					

S/N	Statement	1	2	3	4	5
9	Our firm prepares revenue and expense forecasts regularly.					
10	Budgetary profit forecasts guide our operational and strategic decisions.					
11	Cost accounting information is used to prepare accurate profit forecasts.					
12	Profit forecasts are communicated to all relevant departments for effective planning.					

S/N	Statement	1	2	3	4	5
13	The firm regularly compares actual performance with planned profit targets.					
14	Cost accounting information helps identify areas for cost reduction and profit maximization.					
15	Variance analysis is conducted to optimize profitability.					
16	Performance evaluation reports inform strategic decisions to improve profit planning.					