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REASSESSING THE INFLUENCE OF ACCOUNTING PRACTICES ON THE OPERATIONAL PERFORMANCE OF OIL AND GAS FIRMS IN THE NIGER DELTA

Okon, Emmanuel David, Ph.D.
Department of Accounting, Faculty of Administration and Management, Rivers State University, Nigeria. E-mail: emmanuel.okon@ust.edu.ng

Abstract

This research examines how accounting practices influence the performance of oil and gas firms in Nigeria's Niger Delta. In response to growing calls for financial transparency and accountability from stakeholders, the study assesses the roles of financial reporting standards, cost accounting systems, and internal control mechanisms in shaping performance outcomes such as profitability, efficiency, and financial sustainability. A descriptive survey approach was employed, with structured questionnaires distributed to 200 accounting practitioners across 20 oil and gas companies. Out of these, 178 valid responses were analyzed using correlation and multiple regression methods. Results indicate a strong positive link between accounting practices and organizational performance. Among the predictors, internal control mechanisms exerted the greatest influence ($\beta = 0.409$, $p < 0.01$), followed by financial reporting standards ($\beta = 0.316$, $p < 0.01$), and cost accounting systems ($\beta = 0.241$, $p < 0.01$). The regression model accounted for 57.4% of the variance in performance ($R^2 = 0.574$), underscoring the importance of effective accounting systems in the capital-intensive and high-risk oil and gas industry. The study concludes that well-structured accounting frameworks foster transparency, enhance cost management, and build financial resilience. It recommends that firms strengthen internal control structures, adhere strictly to International Financial Reporting Standards (IFRS), and adopt modern cost accounting approaches. Furthermore, regulatory authorities are urged to enforce compliance and promote capacity development to ensure good governance and sustainable growth in the sector.

Keywords: Accounting Practices, Financial Reporting Standards, Firm Performance, Oil and Gas, Profitability.

Introduction

Nigeria's economy is heavily dependent on the oil and gas industry, which contributes over 90% of foreign exchange earnings and about 60% of government revenue (World Bank, 2023). At the heart of this sector lies the Niger Delta, the country's core hub of hydrocarbon activities and home to numerous multinational and indigenous operators. Despite its vast resource endowment, firm performance in the region has been persistently constrained by weak governance, inefficiencies, and poor financial management. In particular, deficiencies in accounting practices have limited the ability of companies to operate transparently, manage costs effectively, and achieve profitability (Nwaiwu & Uwuigbe, 2022). Sound accounting practices are central to financial accountability, strategic decision-making, and the maintenance of stakeholder confidence. These practices—spanning financial reporting, cost accounting, and internal control systems—are particularly critical in the oil and gas sector, where capital outlays are high and operational risks are substantial. Weaknesses in these systems, such as unreliable financial statements, inadequate cost tracking, and fragile internal controls, distort a company's true financial position and expose it to risks including fraud, penalties, and loss of investor trust (Adegbie et al., 2023).

The introduction of International Financial Reporting Standards (IFRS) in Nigeria sought to enhance transparency and comparability in financial disclosures. Nevertheless, evidence shows that compliance has been inconsistent, especially among indigenous operators in the Niger Delta (Ofori & Okafor, 2023). Similarly, shortcomings in cost accounting remain prevalent, as many firms fail to adopt advanced tools such as activity-based costing or budgetary control systems. This has resulted in cost overruns, delayed projects, and reduced production efficiency. Internal control mechanisms, designed to minimize financial risk and strengthen regulatory compliance, also remain underdeveloped in many oil and gas firms. Weak enforcement has contributed to rising cases of fraud, misappropriation, and unsound financial stewardship (Adeniyi & Omoteso, 2022). These deficiencies collectively undermine performance metrics such as profitability, operational efficiency, and financial resilience.

Given these challenges, investigating the relationship between accounting practices and organizational performance is imperative for addressing structural weaknesses in the Niger Delta's oil and gas sector. While international research has explored this connection extensively, limited empirical studies exist within the Nigerian context, particularly in the Niger Delta, where environmental, regulatory, and sociopolitical complexities intensify operational risks. This study seeks to close that gap by examining how accounting practices specifically financial reporting standards, cost accounting systems, and internal control frameworks shape the performance of oil and gas firms in the region.

Objective of the Study

The main objective of this study is to evaluate the impact of accounting practices on the performance of oil and gas companies in the Niger Delta region of Nigeria. Specific Objectives:

1. To assess the effect of financial reporting standards on the profitability of oil and gas companies in the Niger Delta.

2. To examine the influence of cost accounting systems on the operational efficiency of oil and gas companies in the region.

3. To determine the impact of internal control mechanisms on the financial stability of oil and gas companies operating in the Niger Delta.

Research Hypotheses
Based on the above objectives, the following null hypotheses (H_0) are proposed for empirical testing:

H_{01}: Financial reporting standards have no significant effect on the profitability of oil and gas companies in the Niger Delta.

H_{02}: Cost accounting systems have no significant influence on the operational efficiency of oil and gas companies in the Niger Delta.

H_{03}: Internal control mechanisms have no significant impact on the financial stability of oil and gas companies in the Niger Delta.

Agency Theory
Agency theory, developed by Jensen and Meckling (1976), examines the relationship between principals (owners) and agents (managers). It posits that in the absence of proper monitoring and control mechanisms, agents may act in their own interests rather than those of the principals. This divergence is particularly risky in capital-intensive industries like oil and gas, where financial mismanagement can have severe implications.

In the context of accounting practices, agency theory supports the importance of implementing robust financial reporting standards and internal control systems to reduce information asymmetry and ensure managerial accountability. In oil and gas firms operating in volatile regions like the Niger Delta, where governance structures are often weak, and agency theory underscore the need for transparent accounting practices to align interests and reduce performance risks.

Contingency Theory
Contingency theory posits that there is no one-size-fits-all approach to organizational management and structure. Instead, the effectiveness of management practices including accounting systems depends on contextual factors such as the environment, technology, and organizational size or strategy (Donaldson, 2001).

This theory justifies why accounting practices should be adapted to fit the unique challenges of oil and gas companies in the Niger Delta, such as regulatory uncertainty, environmental risks, and operational complexity. For instance, the choice of cost accounting systems and internal control frameworks should be contingent upon local realities like sabotage risks, infrastructure constraints, and fluctuating crude prices.

Resource-Based View (RBV)
The Resource-Based View (RBV) theory, introduced by Barney (1991), argues that sustainable competitive advantage is achieved through the acquisition and deployment of valuable, rare, inimitable, and non-substitutable (VRIN) resources. Accounting systems particularly advanced financial reporting and cost control mechanisms can be considered strategic organizational resources. RBV underpins the argument that accounting capabilities such as sophisticated financial reporting tools and internal control competencies are essential for achieving superior

firm performance. In oil and gas firms, effective accounting infrastructure serves as a core capability that supports risk management, regulatory compliance, and strategic investment decisions, ultimately enhancing profitability and financial stability.

Concept of Accounting Practices

Accounting practices refer to the systematic methods and procedures employed by organizations to record, report, and interpret financial data. These practices form the backbone of financial transparency, regulatory compliance, and strategic planning. In the context of the oil and gas industry, accounting practices play a critical role in addressing complex transactions, capital expenditures, and operational costs.

According to Nwaiwu and Uwuigbe (2022), accounting practices not only serve statutory purposes but also enhance internal decision-making, investor confidence, and corporate governance. Their relevance is magnified in resource intensive sectors like oil and gas, where the financial implications of exploration, development, and environmental risks are substantial.

The conceptual review underscores the integral role that accounting practices, financial reporting, cost accounting, and internal controls play in driving firm performance. In the volatile and high stakes environment of the Niger Delta oil and gas industry, these accounting dimensions are essential not only for regulatory compliance but also for ensuring profitability, operational efficiency, and long-term financial stability. Empirical evidence supports a strong theoretical and practical relationship between sound accounting practices and improved organizational outcomes.

Financial Reporting Standards

Financial reporting standards are frameworks that govern how companies prepare and disclose financial statements. The International Financial Reporting Standards (IFRS), is widely adopted in Nigeria since 2012, aim to improve comparability, transparency, and accountability in financial disclosures. In the oil and gas sector, IFRS provides guidance on asset revaluation, revenue recognition, and environmental liabilities. Proper application of these standards reduces information asymmetry and enhances investor confidence. Firms in the Niger Delta that comply with IFRS are better positioned to attract capital, avoid regulatory sanctions, and make informed investment decisions. Ofori and Okafor (2023) emphasize that compliance with IFRS significantly improves financial transparency and stakeholder trust in oil and gas companies.

Cost Accounting Systems

Cost accounting systems involve the process of tracking, recording, and analyzing costs associated with production and operations. In oil and gas companies, accurate cost accounting is critical for budgeting, cost control, and profit maximization. Activity-Based Costing (ABC), Standard Costing, and Job Order Costing are among the common systems employed. These systems allow managers to assign costs to specific exploration and production activities, thereby identifying cost drivers and optimizing resource allocation. Tuanmat and Smith (2022) show that tailored cost accounting systems significantly enhance cost control and operational decisions in capital-intensive industries.

Internal Control Mechanisms

Internal controls are systems, policies, and procedures designed to safeguard assets, ensure the integrity of financial records, and enhance operational efficiency. They include segregation of duties, audit trails, authorization protocols, and risk assessment tools. In the Niger Delta, where theft, sabotage, and financial misconduct are prevalent, robust internal controls are crucial to preventing fraud and ensuring regulatory compliance. Companies with effective internal controls report fewer instances of misappropriation and experience better financial stability. Adeniyi and Omoteso (2022) find that strong internal control frameworks correlate positively with improved financial performance and investor confidence.

Concept of Firm Performance

Firm performance is a multifaceted construct that evaluates how effectively an organization achieves its goals. It includes both financial and non-financial metrics, ranging from profitability and efficiency to liquidity and solvency. In oil and gas companies, performance evaluation is vital due to the high-risk, high-capital nature of operations. According to Kamukama and Natamba (2022), firm performance reflects an organization's capacity to deliver value to stakeholders, manage resources effectively, and maintain long-term sustainability.

Profitability

Profitability refers to a company's ability to generate earnings relative to its costs and capital investment. Key indicators include Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin. For oil and gas companies, high capital intensity necessitates rigorous accounting systems to track revenue and manage costs effectively. Afify and Mahmoud (2022) observe that firms with structured accounting practices, particularly in financial reporting, demonstrate stronger profitability outcomes.

Operational Efficiency

Operational efficiency refers to the ability of a firm to optimize resources, reduce waste, and streamline processes. In oil and gas operations, this includes reducing downtime, managing drilling costs, and improving energy utilization. Efficient firms produce more output with fewer inputs, which is directly influenced by cost accounting and internal control measures. Adegbie et al. (2023) confirm that cost systems linked to strategic goals improve production efficiency in Nigerian oil companies.

Financial Stability

Financial stability reflects a firm's ability to meet its short-term and long-term financial obligations, withstand market shocks, and maintain solvency. It is often measured by liquidity ratios, debt-to-equity ratios, and working capital metrics. Effective internal controls and accurate financial records enhance financial stability by reducing financial risks and improving capital allocation. Nwaiwu and Uwuigbe (2022) noted that financial stability improves significantly in firms with transparent accounting practices and strong governance structures.

Empirical Reviews

Osisioma and Ngobiri (2023) investigated Impact of financial reporting standards on firm value: Evidence from listed oil firms in Nigeria. A descriptive survey design was used. Data collected from 180 finance professionals across major oil firms were analyzed using multiple regression analysis. Findings showed that compliance with IFRS significantly improved investors' confidence and enhanced market valuation of firms. The study concluded that standardized reporting is crucial for accurate financial representation. It recommended stricter enforcement of IFRS and continuous training of accounting personnel.

Akpan and Okoro (2022) investigated internal controls and financial performance of Nigerian oil companies. This study employed a cross-sectional research design and used Pearson correlation and regression to analyze responses from 150 employees. Results indicated a positive and significant effect of internal control mechanisms on profitability and liquidity. The researchers concluded that internal controls reduce fraud and inefficiencies. They recommended routine internal audits and segregation of duties.

Eze and Egbunike (2022) investigated Cost accounting systems and profitability of oil and gas firms in Nigeria. The study used a quantitative approach and structural equation modeling (SEM) to test the influence of cost systems on profitability. Results revealed that firms applying activity-based costing reported better margin control and resource efficiency. The study concluded that modern costing methods enhance strategic decisions. It suggested that oil firms adopt advanced cost modeling tools.

Mohammed and Yusuf (2023) investigated the effect of IFRS adoption on financial stability in the petroleum sector. A longitudinal study design was used to track financial metrics before and after IFRS adoption in selected firms. Regression analysis showed improved capital structure and debt-equity ratios post-adoption. The authors concluded IFRS enhances transparency and reduces agency costs. They recommended that regulatory agencies should support firms with IFRS transition training.

Musa and Bello (2022) investigated financial disclosure quality and firm profitability in West Africa's oil industry. This crosscountry panel study employed panel regression on financial statement data of listed oil firms. High disclosure quality was positively associated with profitability and reduced earnings management. The study concluded that transparency attracts investment. It recommended aligning local accounting practices with global disclosure norms.

Oladipo and Ajayi (2021) investigated Effect of activity-based costing on operational efficiency of oil firms. The study adopted a survey research design and used ANOVA to test differences in cost efficiency among firms using traditional and activity-based costing. Results showed statistically significant improvements in cost tracing and waste reduction among ABC adopters. The authors recommended firm-wide ABC implementation and system automation.

Okafor and Essien (2023) investigated Role of accounting practices in ensuring transparency in extractive industries. A qualitative case study approach was used. The researchers reviewed audit trails, public disclosures, and conducted interviews. They found that transparency in financial practices fosters trust between oil companies and host communities. The study concluded with the recommendation for mandatory Extractive Industries Transparency Initiative (EITI) participation.

Onwumere and Nwankwo (2021) investigated Cost control techniques and financial performance of petroleum marketing firms in Nigeria Using descriptive survey and regression analysis, the study confirmed that budgetary control, cost audits, and variance analysis improve profit margins. The authors concluded that cost control should be integrated into daily operations. They recommended managerial training on financial discipline.

Adebayo and Aluko (2022) investigated IFRS compliance and earnings management in the Nigerian oil sector through econometric modeling and survey responses, the study found that firms complying with IFRS were less likely to engage in earnings manipulation. The study concluded that full IFRS adoption promotes ethical accounting behavior. It urged the FRC to conduct regular IFRS compliance audits.

Udoka and Iheduru (2021) investigated corporate reporting and investment decisions in Nigeria's petroleum industry. This correlational study found a strong positive relationship between corporate reporting transparency and investor decision-making. The researchers concluded that open disclosures reduce perceived investment risks. They advocated real-time digital reporting systems.

Obi and Ekpo (2022) investigated internal audit quality and financial resilience of oil firms during economic downturns. Through logistic regression, the authors found that firms with effective internal audit units were more likely to survive financial shocks. The study concluded that robust internal audit systems build resilience. It recommended mandatory internal audit quality assessments.

Methodology

This study adopts a descriptive and explanatory research design. The descriptive aspect is used to identify and describe the existing accounting practices among oil and gas companies in the Niger Delta, while the explanatory component is used to evaluate the effect of those practices on various dimensions of firm performance. This approach is suitable because it allows for both the collection of current, observable data and the establishment of cause-effect relationships between the independent and dependent variables. The target population comprises all registered and operational oil and gas companies in the Niger Delta region of Nigeria, including both upstream and downstream firms. A purposive sampling technique is employed to select oil companies that have been operational for at least 10 years and regularly publish audited financial statements. Based on preliminary field research and availability, 20 firms are selected. From these firms, questionnaires are distributed to key accounting, finance, and internal audit personnel. The total sample size is 200 respondents, with an average of 10 staff per company. Data were Collection through a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). Structured questionnaires administered to gather information. Descriptive statistics, Multiple Regression and Pearson Correlation Analysis were used for the Analysis. Data analysis is conducted using SPSS version 26. The significance level is set at 0.05 (95% confidence interval). Content validity is established by subjecting the questionnaire to expert review in accounting and oil sector regulation. Reliability is tested using Cronbach's Alpha, where a score above 0.70 is considered acceptable Model Specification

To determine the relationship between accounting practices and Performance of oil and gas companies in the Niger Delta, this model is used

$FM = \beta_0 + \beta_1 FRS + \beta_2 CAS + \beta_3 ICM + \varepsilon$
Where:
FM= Firm Performance
FRS = Financial Reporting Standards
CAS = Cost Accounting Systems
ICM = Internal Control Mechanisms
β_0 = Intercept
B_1–β_3 = Coefficients
ε = Error term

Discussion of Findings

The results affirm that accounting practices significantly impact firm performance in oil and gas companies operating in the Niger Delta. These findings align with the works of Osisioma and Ngobiri (2023), who found that financial reporting transparency increases, firm valuation. Akpan and Okoro (2022), who observed that strong internal controls minimize fraud and improve liquidity, Eze and Egbunike (2022), whose study found cost systems directly affect profitability and decision quality. These findings support Agency Theory and Contingency Theory, both of which emphasize the strategic role of accounting systems in aligning performance with accountability and environmental fit. The findings revealed that:

1. Internal control mechanisms had the most significant and positive effect on firm performance, highlighting their role in fraud prevention, process discipline, and compliance.

2. Financial reporting standards also significantly influenced performance, demonstrating the value of transparency and adherence to international financial norms in maintaining stakeholder confidence.

3. Cost accounting systems, though slightly less influential, were found to contribute meaningfully to operational efficiency and cost optimization.

Conclusion and Recommendations

This study set out to evaluate the impact of accounting practices on the performance of oil and gas companies in the Niger Delta. Guided by empirical evidence and theoretical foundations, the study investigated three key dimensions of accounting practices financial reporting standards, cost accounting systems, and internal control mechanisms and their effects on firm performance indicators such as profitability, operational efficiency, and financial stability. Overall, the statistical results confirmed that accounting practices explain a substantial proportion (57.4%) of the variation in firm performance among oil and gas companies in the Niger Delta. This underscores the critical role of robust accounting systems in enhancing corporate value and sustainability in a high-risk, capital-intensive industry. These findings are consistent with contemporary literature (Osisioma & Ngobiri, 2023; Akpan & Okoro, 2022; Eze & Egbunike, 2022) and affirm the relevance of Agency, Stakeholder, and Contingency theories in contextualizing accounting practices within organizational performance paradigms. In light of the findings, the following actionable recommendations are made:

1. Strengthen Internal Control Mechanisms: Oil and gas companies should continually invest in internal auditing tools, real-time monitoring systems, and segregation-of-duties protocols. This will mitigate risks of financial misstatements, fraud, and resource misappropriation.

2. Enhance Compliance with Financial Reporting Standards: Regulators such as the Financial Reporting Council of Nigeria (FRCN) should intensify supervision and enforcement of International Financial Reporting Standards (IFRS), ensuring consistency, comparability, and accountability in financial disclosures.

3. Improve Cost Accounting Systems: Companies should adopt modern costing techniques such as Activity-Based Costing (ABC) and implement ERP-integrated costing tools. This will improve cost traceability and strategic pricing decisions, especially under volatile oil price conditions.

4. Capacity Building for Accounting Personnel: Regular training and certification updates for accounting and finance staff should be institutionalized to enhance professional competence in handling evolving standards and technologies.

5. Stakeholder Engagement and Transparency: Companies should engage more proactively with investors, host communities, and government agencies through transparent disclosures and performance reporting, thus improving public trust and corporate legitimacy.

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