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Corporate Performance and Accounting Control Practice: A Comprehensive Analysis of Listed Oil and Gas Companies in Nigeria

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Abstract This study examines how to enhance the corporate performance through impact of accounting control practice specifically within oil and gas companies operating in Nigeria. With a background rooted in the challenges of inadequate accounting controls leading to financial irregularities, the research investigates how preventive, detective, and corrective accounting mechanisms can enhance corporate performance. The research employs a quantitative approach, analyzing secondary data over 21 years (2003–2023) from annual reports of ten prominent listed oil and gas companies listed on the Nigerian Exchange Group. Using multiple panel regression models, the study examines the effects of each control practice on net profit margins. Findings reveal that preventive controls, such as segregation of duties and transaction authorization, significantly enhance performance by reducing financial mismanagement. Detective controls, including regular audits and reconciliations, are shown to have the strongest positive influence on performance, underscoring their role in early fraud detection and compliance. Corrective controls, aimed at rectifying detected errors, contribute positively to financial outcomes, establishing a comprehensive accounting framework that reinforces corporate governance and financial integrity. This study contributes to literature by focusing on listed oil and gas companies in Nigeria, emphasizing the need for robust accounting controls in sectors with complex regulatory landscapes. The research suggests that effective accounting controls can foster transparency, thereby increasing investor confidence and aligning corporate activities with strategic goals. Limitations include reliance on secondary data, which may not capture nuanced operational insights. The study's implications recommend that policymakers encourage stringent accounting controls across multinational oil and gas companies to enhance performance, offering practical guidance for sustaining profitability in volatile markets.

Keywords Accounting Control Practice, Corporate Performance, Oil and Gas Companies, Nigeria

JEL Codes: *M41, M42*

1. Introduction

1.1. Background to the Study

In Nigeria's competitive environment, oil and gas companies (OGCs) play a crucial role, relying on effective accounting control systems to ensure operational efficiency and overall performance. These companies operate across diverse global markets, managing extensive operations that necessitate robust financial oversight. Understanding the

vital role of accounting control is key to achieving organizational success, as it underpins financial oversight, facilitates informed decision-making, and ensures compliance with regulatory requirements [1]. As MOGCs navigate Nigeria's dynamic business landscape, they increasingly recognize the importance of prioritizing effective accounting control systems to optimize performance. These companies, characterized by intricate structures and large-scale operations, must invest in mechanisms that help them address challenges and seize opportunity, operating rating in varied legal and cultural environments.

In Nigeria, where regulatory environments can be fluid, these companies must prioritize accounting control to maintain optimal performance. Factors such as currency fluctuations, regulatory compliance across different jurisdictions, and geopolitical risks further emphasize the need for robust financial oversight. OGCs operate both domestically and internationally, with decision-making dispersed across multiple levels and units. Their expansive operations present opportunities and challenges that involve considerations of scale, diversity, and adaptability [2]. These corporations leverage significant human and material resources, impacting their global operations. Navigating diverse cultural, legal, and economic landscapes requires a nuanced management approach, making accounting control vital for aligning different entities with overarching organizational objectives and ensuring financial accountability [2].

As Nigerian OGCs increasingly expand into global markets, accounting control mechanisms are instrumental in adapting to international accounting standards, managing currency risks, and adhering to global regulations, thereby contributing to their success on the world stage [3]. Companies that implement robust accounting control measures demonstrate increased financial transparency, fostering trust among stakeholders and improving access to capital [4]. By providing timely, accurate, and relevant financial information, effective accounting controls empower management to make informed decisions, leading to enhanced operational efficiency and strategic planning. Furthermore, strong accounting control systems correlate with better compliance with regulatory requirements, minimizing the likelihood of financial irregularities and mitigating operational and reputational risks [5]. This study highlights the importance of enhancing the performance of listed OGCs through effective accounting control within Nigeria's dynamic and evolving business environment. It emphasizes the need for organizations to integrate and improve accounting control practices to remain competitive and successful in a constantly changing landscape.

1.2. Problem Statements and Literature Gaps

The growing prevalence of financial scandals worldwide has prompted businesses to strengthen internal control mechanisms. Effective accounting control practices are essential for fostering organizational success, ensuring transparency, and preventing financial malpractices. Aligning financial performance metrics with strategic objectives, accounting control allows organizations to adopt a more cohesive and goal-driven approach to operations. Robust accounting control practices elevate stakeholder confidence, including investors, creditors, and employees, thereby positively impacting the organization's overall performance and growth prospects [5]. OGCs face unique complexities that require efficient accounting controls to ensure compliance, reduce risks, and enhance operational efficiency [6]. This complexity introduces risks and challenges, making accounting control mechanisms essential for aligning corporate activities with strategic goals and maintaining financial integrity.

Unlike some recent studies that heavily rely on primary data sources and qualitative approaches, this research is distinctive in its use of secondary data and a qualitative method, setting it apart from existing literature. Many reviewed studies, including those by [2], [7], [8], [9] and [10] primarily focus on broad concepts such as the impact of internal control and management control on firm performance. In contrast, this research narrows its scope to examine how accounting controls can enhance the performance of multinational oil and gas companies.

Additionally, this study is conducted in Nigeria to evaluate how effective accounting control mechanisms can improve firm performance across various sectors. The rationale for this focus is the prevalence of previous studies conducted outside Nigeria. For example, Temiz and Özkan [8] researched in Turkey, Bageni [9] focused on Kenya, and Al-Waeli et al. [10] covered Iraq, among others. This motivates the current study to concentrate on an emerging economy, specifically the listed oil and gas companies (OGCs) in Nigeria, by exploring their financial activities both locally and internationally. This emphasis is vital, as many prior studies predominantly targeted either local or national companies or international ones. Furthermore, this research covers a time span from 2003 to 2023, extending beyond the periods of the reviewed studies, which ranged from 2009 to 2021 [8], 2012 to 2022 [9], 2015 to 2023 [10].

Moreover, literature combining the explanatory variables of preventive accounting control practices (PACP), detective accounting control practices (DACP), and corrective accounting control practices (ACCP) is scarce. These variables are particularly relevant for assessing how the prevention and detection of financial fraud and other irregularities, along with the correction of errors in accounting transactions, can enhance corporate performance. While existing studies underscore the importance of accounting control practices in enhancing corporate performance, few have focused specifically on MOGCs in Nigeria. This research aims to address this gap by investigating how preventive, detective, and corrective accounting controls contribute to improved performance in these firms. This study aims to provide insights into

preventing corporate fraud and other financial malpractices by investigating the impact of different types of accounting controls—preventive, detective, and corrective—on the performance of multinational oil and gas companies in Nigeria. Given the complexities of managing resources in both domestic and international markets, implementing robust accounting controls not only strengthens corporate governance but also enhances performance, contributing to organizational success.

1.3. Study Objectives

The primary objective of this study is to assess how accounting control practices can enhance corporate performance, focusing specifically on listed oil and gas companies (OGCs) in Nigeria. The study seeks to:

a. Evaluate the impact of preventive accounting control practice on performance of listed OGCs in Nigeria.
b. Analyze how detective accounting controls contribute to improved performance of listed OGCs in Nigeria.
c. Assess the role of corrective accounting controls in enhancing the performance of listed OGCs in Nigeria.

2. Literature Review

2.1. Theoretical Framework and Hypotheses Development

This investigation is grounded in the foundational frameworks of Resource Dependency Theory (RDT) and Contingency Theory. The Contingency Theory, introduced by [11], posits that the effectiveness of Management Control Systems (MCS) is contingent upon external environmental factors and internal organizational elements [12]. This framework is instrumental in elucidating the relationship between Accounting Control Practices (ACPs) and performance in multinational oil and gas companies (MOGCs). The theory highlights that nonprofit organizations in Nigeria may encounter agency problems where managerial and employee incentives are misaligned with the organization's objectives (Chang et al., 2019). Within the context of MOGCs, factors such as activity types, company size, and resource dependencies significantly influence the design and execution of ACPs. By understanding these contingencies, MOGCs can tailor their control systems to optimize financial performance [13]. These theoretical frameworks facilitate a deeper understanding of how MCS can impact the financial performance of nonprofit organizations in Nigeria, providing insights into how external environments, stakeholder relationships, and institutional pressures shape the performance of MOGCs.

Resource Dependency Theory (RDT), articulated by Pfeffer and Salancik [14], emphasizes the strategies organizations employ to acquire and manage essential resources, suggesting that accounting practices may be adapted to manage dependencies on critical inputs [2]. Effective accounting controls are vital for ensuring the efficient utilization and protection of these resources. Furthermore, Transaction Cost Economics, introduced by Williamson (1981), examines the costs associated with transactions between entities [15]. Accounting controls play a crucial role in minimizing transaction costs, thereby enhancing operational efficiency. For instance, when a company outsources part of its production, its accounting control systems are likely to incorporate measures to monitor the performance of the outsourcing partner and ensure compliance with contractual obligations [10].

The aforementioned theories provide valuable insights into the complexities surrounding the development and implementation of accounting control systems. They offer a comprehensive understanding of the intricate dynamics that shape the relationship between accounting controls and organizational performance, highlighting the significance of financial management in achieving success.

2.2. Accounting Control Practice and Corporate Performance in Listed OGCs

Numerous studies have examined the connection between accounting control practices and corporate performance. For instance. Temiz and Özkan [8] found a positive correlation between the quality of accounting information and firm performance in the manufacturing sector. Similarly, Bageni [9] identified that longer auditor tenure enhances audit quality and strengthens accounting controls, resulting in improved corporate outcomes. Accounting control encompasses managing and regulating financial activities within an organization [6]. It involves implementing preventive, detective, and corrective measures to safeguard assets, ensure accuracy in financial reporting, and comply with legal and regulatory standards. Effective accounting controls foster transparency and accountability, contributing directly to enhanced corporate performance [16]. In Nigeria, robust accounting control mechanisms enable organizations to identify, assess, and mitigate various risks, thereby improving their overall performance [16].

In this context, corporate performance is defined not merely by meeting expectations but by exceeding them and making a lasting impact [6]. Shareholders are more inclined to support companies that demonstrate efficient resource utilization and financial responsibility through effective accounting control [4]. In listed OGCs, corporate performance is often assessed in terms of profitability, efficiency, and liquidity. Effective accounting control practices ensure that these companies can meet financial obligations, optimize resource utilization, and enhance overall productivity.

Profitability is a key indicator of corporate performance, directly influenced by accounting controls that reduce financial mismanagement and fraud [6]. Preventive controls, for example, promote the efficient use of

company resources, leading to cost savings and improved profit margins. Efficiency, in turn, pertains to how well a company employs its resources to achieve its objectives, while liquidity measures the ability to meet short-term financial obligations. For instance, Temiz and Özkan [8] explored the quality of accounting information and its relationship with firm performance and value within Turkey's manufacturing sector. Their study, which employed panel regression analysis, demonstrated a positive correlation between accrual-based accounting quality indicators and firm performance. Additionally, Bageni [9] investigated auditor tenure in Kenya and found that increased auditor tenure corresponded with higher quality audit work, further supporting strong accounting controls.

Maintaining strong performance is essential for MOGCs due to its implications for profitability, productivity, efficiency, and liquidity [12]. Performance encompasses aspects such as revenue generation, cost management, financial sustainability, and impact assessment [17]. For MOGCs to effectively serve their stakeholders, it is crucial to maintain healthy performance levels to ensure long-term operational viability [1]. Various financial ratios and metrics, including liquidity ratios, efficiency ratios, and sustainability metrics, are utilized to assess performance. Liquidity ratios, such as the current and quick ratios, measure a company's ability to meet short-term obligations, while efficiency ratios evaluate resource utilization, and sustainability metrics consider factors like donor retention rates [18]. Different financial measures, such as Return on Assets (ROA) and Profit Margin (PMG), offer insights into a company's profitability and its capacity to generate earnings from invested capital [19]. The three identified types of accounting controls—preventive, detective, and corrective—serve distinct functions in ensuring the integrity and accuracy of financial information within organizations [20].

2.3. Preventive Accounting Controls Practice and MOGCs Performance

Preventive controls are designed to avert errors or fraudulent activities before they occur [6]. In OGCs, these may include stringent authorization processes for transactions, segregation of duties, and thorough documentation of financial activities. In Nigeria, accounting control extends beyond mere compliance; it serves as a strategic tool for multinational corporations. Preventive practices help ensure that companies maintain accurate financial records, effectively manage cash flows, and avert liquidity crises. For OGCs operating in volatile markets, maintaining liquidity is vital for sustaining operations and ensuring long-term financial health [18]. These preventive mechanisms serve as the first line of defense against financial irregularities and operational inefficiencies, minimizing risks associated with financial mismanagement. This leads to the following hypothesis:

H01: Preventive accounting control practice does not significantly impact the performance of listed OGCs in Nigeria.

2.4. Detective Accounting Controls Practice and MOGCs Performance

Detective controls are implemented to identify and rectify errors or irregularities post-occurrence [6]. These controls, including regular internal audits and financial reconciliations, are crucial for detecting discrepancies and preventing fraud from going unnoticed. Detective accounting controls streamline operations, minimize unnecessary expenses, and ensure compliance with best practices [10]. For MOGCs, strong accounting controls facilitate optimal resource allocation, resulting in higher productivity and improved performance outcomes. Effective accounting controls provide timely and accurate financial information, empowering decision-makers to respond promptly to market dynamics. Thus, in the context of MOGCs, detective controls play a vital role in maintaining the integrity of financial reports and ensuring compliance with both local and international regulations. This leads to the following hypothesis:

H02: Detective accounting control practice does not enhance the performance of listed OGCs in Nigeria.

2.5. Corrective Accounting Controls Practice and MOGCs Performance

Corrective controls are essential for addressing issues that have already occurred [18]. Measures such as revising erroneous financial statements or enhancing internal processes following an audit are critical for mitigating the impact of past mistakes and preventing future occurrences. From a management control perspective, corrective controls establish internal mechanisms and procedures that guide decision-making and performance evaluation [21]. While preventive controls focus on preventing errors or fraud, and detective controls identify issues after they occur, corrective controls rectify errors or mitigate the impact of fraud [22]. Listed OGCs that enforce robust corrective controls are better equipped to manage the financial repercussions of errors and fraud, ultimately improving long-term performance. This leads to the following hypothesis:

H03: Corrective accounting control practice does not significantly impact the performance of listed OGCs in Nigeria.

3. Methodology

3.1. Research Design and Data Source

This study adopts a quantitative research design,

utilizing secondary data from the annual reports of ten listed oil and gas companies (OGCs) operating in Nigeria. These companies were selected based on their significant market share and contributions to Nigeria's economy. The dataset spans 20 years, from 2003 to 2023, focusing on trends and performance indicators during this period. The selection of the ten MOGCs was purposive, based on their track records of economic contributions, and prominence within the oil and gas sector [10], [18]. The companies chosen were those listed on the Nigerian Exchange Group (NXG) Plc, ensuring that the analysis covers leading players with substantial market influence.

3.2. Data Analysis Methods

To ensure a thorough analysis, multiple statistical techniques were employed to validate the research findings. These methods include panel unit root tests to confirm the stationarity of the dataset and various panel regression models—namely, Pooled Ordinary Least Squares (POLS), Fixed Effects (FE), and Random Effects (RE) models—to assess the impact of accounting control practices on corporate performance.

In determining the most appropriate model, several diagnostic tests were conducted. The Breusch-Pagan test was used to compare the Random Effects and Pooled Ordinary Least Squares models, while the F-restricted test assessed the suitability between the Pooled Ordinary Least Squares and Fixed Effects models. Additionally, the Hausman test was employed to decide between the Fixed and Random Effects models. The White test checked for the presence of heteroskedasticity, and the Durbin-Watson (DW) test evaluated whether serial correlation existed within the data series. Collectively, these tests ensured the robustness and reliability of the study's results by verifying the accuracy of model selection and the integrity of the statistical processes used.

3.3. Operationalization of Variables

The dependent variable, corporate performance (CPFM), is measured using net profit margin (NPMG). The independent variable, accounting control practices, is operationalized through three explanatory variables: preventive accounting control practices (PACP), detective accounting control practices (DACP), and corrective accounting control practices (CACP), as presented in Table 1. These variables form the foundation of the analysis, with their influence on corporate performance explored through the specified models.

3.4. Model Specification

To address the study's objectives and provide insights into how to enhance corporate performance through the impact of effective accounting control practice in listed oil and gas companies, the following model was specified:

$$CPFM_{i,t} = f\left(PA\mathrm{PC}_{i,t,}\mathrm{DACP}_{i,t,}\mathrm{CACP}_{i,t,}\right) \quad (1)$$

Where:

$CPFM_{I,t}$ = Corporate performance measure in term of net profit margin of MOGCs i in year t;

$PACP_{i,t}$ = Preventive accounting control practice of MOGCs i in year t;

$DACP_{i,t}$ = Detective accounting control practice of MOGCs i in year t;

$CACP_{i,t}$ = Corrective accounting control practice of MOGCs i in year t.

This model underscores the relationships between the various forms of accounting controls (preventive, detective, and corrective) and corporate performance, aiming to offer valuable findings for stakeholders within the oil and gas industry. The comprehensive statistical approach ensures that the model captures the intricate dynamics between accounting control practices and performance outcomes in the Nigerian oil and gas sector.

Table 1. Variable Identification and Measurement

Types of Variable	Variable Proxy	Measurement	Source
Dependent variable: Corporate Performance	Net Profit Margin (NPMG)	Profit after tax & interest divided by total revenue	[3]
Independent variable: Accounting Controls Practices	Preventive accounting control practice (PACP)	Log of numbers of times per annum the companies introduced additional accounting system for improvement	[14]
	Detective accounting control practice (DACP)	Log of number of times per annum the external auditors detected accounting errors	[10]
	Corrective accounting control practice (CACP)	The cost incurred by internal audit unit in correcting detected accounting errors divided by total internal audit operating expenses	[21]

Source: Authors; Compilation (2024)

4. Results and Discussion

The descriptive analysis results presented in Table 2 provide insight into the key variables related to the accounting control practices and corporate performance of oil and gas companies (OGCs) in Nigeria. The table focuses on four key variables: Corporate Performance Measure (CPPM) in terms of net profit margin (NPMG), Preventive Accounting Control Practice (PACP), Detective Accounting Control Practice (DACP), and Corrective Accounting Control Practice (CACP). Each variable is measured across 210 observations. The mean net profit margin (NPMG) is 0.263, suggesting that, on average, the OGCs maintain a profit margin of approximately 26.3%. The maximum NPMG recorded is 0.540 (54%), while the minimum is 0.020 (2%), indicating a wide range of profitability across the firms studied. The standard deviation for NPMG is relatively low at 0.01761, signifying low variability in net profit margins across the companies.

For Preventive Accounting Control Practices (PACP), the mean value is 0.725, indicating that, on average, preventive control practices are strongly present among the companies. The maximum value of 0.870 further underscores that some firms have robust preventive controls in place. However, the minimum PACP value of 0.020 shows that some companies might have weak or almost non-existent preventive measures. The standard deviation of 0.27260 suggests moderate variability in preventive controls across the firms.

Detective Accounting Control Practices (DACP) have a mean value of 0.677, implying that detective controls are generally present but less consistently applied compared to preventive controls. The maximum value reaches 0.670, but the minimum is 0.000, which indicates that some firms lack these controls entirely. With a standard deviation of 0.40121, there is notable variability in the implementation of detective control practices.

Corrective Accounting Control Practices (CACP) have the highest mean of 0.728, which shows that corrective controls are commonly applied across the listed OGCs. The maximum value of 0.990 indicates a very strong application in some firms, while the minimum value of 0.410 shows that corrective practices are still present, but at a lower level in some companies. The standard deviation of 0.346424 indicates moderate variability in the application of these corrective measures. Overall, the descriptive analysis highlights that listed OGCs in Nigeria generally have a strong focus on preventive and corrective accounting controls, while the use of detective controls is more variable, with some companies exhibiting weak or no detective mechanisms. The variation in net profit margins also suggests that the application of these accounting controls may influence corporate performance to varying degrees.

4.1. Pre-Data Test

Table 3 presents the results of a Panel Unit Root Test using the Augmented Dickey-Fuller (ADF) method to assess the stationarity of the variables associated with multinational oil and gas companies (MOGCs) in Nigeria. The variables include Corporate Performance Measure (CPPM) in terms of net profit margin (NPMG), as well as Preventive, Detective, and Corrective Accounting Control Practices (PACP, DACP, and CACP, respectively). The t-statistics for all four variables—NPMG (76.7410), PACP (82.2752), DACP (74.7260), and CACP (65.7611)—are notably high, with corresponding probability values of 0.00000 at level. These probability values indicate that each variable is statistically significant at the 1% level, suggesting that none of the variables exhibit a unit root. Therefore, the variables are stationary at level, meaning that their statistical properties such as mean and variance remain constant over time. This result implies that the corporate performance and accounting control practices of MOGCs are stable and do not exhibit random fluctuations, making them reliable for further analysis.

4.2. Post Data Tests

Table 4 provides the results of various model selection and diagnostic tests aimed at identifying the most appropriate econometric model for analyzing the corporate performance and accounting control practices of listed oil and gas companies (OGCs) in Nigeria. The White test for heteroskedasticity yielded a test statistic of 73,191.90 with a p-value of 1.061, which is less than 0.05, indicating the presence of heteroskedasticity in the data. As a result, the Fixed Effects (FE) model is selected to address this issue. Next, the Durbin-Watson (DW) test, with a statistic of 2.651221 and a p-value of 0.430, shows that there is no autocorrelation in the model, meaning the errors are independent over time, further supporting model adequacy.

The Hausman test comparing Random Effects (RE) to Fixed Effects (FE) models produced a chi-squared statistic of 0.790 and a p-value of 0.2460. Since the p-value is below 0.05, the Random Effects (RE) model is chosen, suggesting it is more appropriate for this dataset. Additionally, the F-test, comparing Fixed Effects (FE) to Pooled Ordinary Least Squares (POLS), returned a chi-squared statistic of 0.840 with a p-value of 0.012, which is greater than 0.05. This further supports the selection of the Fixed Effects (FE) model over POLS, indicating the significance of company-specific effects in the data. Finally, the Breusch-Pagan test comparing Pooled OLS to Random Effects (RE) resulted in a chi-squared statistic of 7.643 with a p-value of 0.0312, favoring the Random Effects (RE) model once again. Taken together, these tests suggest that the Random Effects (RE) model is the most suitable for analyzing the data on MOGCs, accounting for company-specific variations while ensuring the statistical assumptions are met.

Table 2. Descriptive Analysis Results

Variables	NPMG	PACP	DACP	CACP
Mean	0.26300	0.72500	0.67700	0.72800
Median	0.16000	0.85100	0.03500	0.61000
Maximum	0.54000	0.87000	0.67000	0.99000
Minimum	0.02000	0.02000	0.00000	0.41000
Std. Dev.	0.01761	0.27260	0.40121	0.346424
Observations	210	210	210	210

Source: Data Analysis (2024)

Table 3. Panel Unit Root Test-ADF Method

Variables	t-statistics	Probability @ Level
NPMG	76.7410	0.00000
PACP	82.2752	0.00000
DACP	74.7260	0.00000
CACP	65.7611	0.00000

Source: Data Analysis (2024)

Table 4. Models' Selection and other Diagnostic Tests

SN	Variables/Test Method	Statistics	P-value	Decision
1	White test: Heteroskedasticity	73191.90	1.061<0.05	FE is selected
2	Durbin-Watson (DW)	2.651221	0.430<0.05	No autocorrelation exist
3	Hausman test: RE Vs FE	$X^2 = 0.790$	0.2460<0.05	RE is selected
4	F- test: FE Vs POLS	$X^2 = 0.840$	0.012>0.05	FE is selected
5	Breusch-Pagan POLS Vs RE	$X^2 = 7.643$	0.0312>0.05	RE is selected
6	Hausman test: RE Vs FE	$X^2 = 0.790$	0.2460<0.05	RE is selected

Source: Data Analysis (2024)

4.3. Regression Results

Table 5 presents the results of a Random Effects Generalized Least Squares (GLS) model, using 210 observations to assess the relationship between corporate performance, measured by net profit margin (NPMG), and various accounting control practices—Preventive (PACP), Detective (DACP), and Corrective (CACP)—among multinational oil and gas companies (MOGCs) in Nigeria. The dependent variable in this model is the net profit margin (NPMG), while the independent variables are the accounting control practices. The results reveal that the constant term has a coefficient of 0.696354, with a standard error of 0.435101 and a z-statistic of 1.745, yielding a significant p-value of 0.0360. This indicates that when all accounting control practices are held constant, the net profit margin of the OGCs remains positive and statistically significant. For the independent variables, the preventive accounting control practice (PACP) has a coefficient of 0.785110, a standard error of 0.313012, and a z-statistic of 2.441, with a p-value of 0.0235, showing a statistically significant positive effect on NPMG. This implies that an increase in preventive accounting practices is associated with an improvement in corporate performance, as measured by the net profit margin.

Table 5. Random Effect Model

Random-effects (GLS) Model , using 210 observations Dependent Variable: NPMG				
Variables	Co-efficient	Std. Error	z-Statistic	P-value
Constant	0.696354	0.435101	1.745	0.0360
PACP	0.785110	0.313012	2.441	0.0235
DACP	1.385230	0.318032	4.224	0.0042
CACP	0.689454	0.211871	2.485	0.0310
R-Square (R^2) Adjusted R^2	0.785032 0.842000			

Source: Data Analysis (2024)
SERIES: NPMG, PACP, DACP, CACP

Similarly, the detective accounting control practice (DACP) exhibits a strong positive effect, with a coefficient of 1.385230, a standard error of 0.318032, and a z-statistic of 4.224, with a p-value of 0.0042. This result is highly significant, suggesting that strengthening detective control practices greatly enhances the net profit margin of listed OGCs. The corrective accounting control practice (CACP)

also positively impacts the net profit margin, with a coefficient of 0.689454, a standard error of 0.211871, and a z-statistic of 2.485, with a p-value of 0.0310, indicating that corrective controls play a vital role in boosting corporate performance.

The R-squared (R^2) value of 0.785032 indicates that approximately 78.5% of the variance in net profit margin can be explained by the accounting control practices in the model. The adjusted R^2 value of 0.842000 further supports the model's robustness, confirming that the independent variables significantly contribute to explaining corporate performance. Overall, the results show that preventive, detective, and corrective accounting control practices positively and significantly affect the net profit margin of multinational oil and gas companies in Nigeria, emphasizing the importance of sound accounting control practices in improving corporate performance.

4.4. Discussion of Findings

The findings of this study provide significant evidence into how accounting control mechanisms impact the corporate performance of listed oil and gas companies (MOGCs) in Nigeria. The results of the Random Effects Generalized Least Squares (GLS) model reveal that all three accounting control practices—preventive, detective, and corrective—have a statistically significant positive effect on corporate performance, as measured by the net profit margin. This indicates that strengthening these control mechanisms contributes to improved profitability. Specifically, preventive accounting control practices have a positive and significant impact, implying that firms that implement robust preventive controls experience better corporate performance. Detective control practices show the strongest effect on net profit margins, suggesting that companies that prioritize detecting irregularities or issues promptly can achieve higher profitability. Corrective controls also play a vital role, emphasizing the importance of promptly addressing any detected issues to maintain or enhance performance. The outcomes of this study align with the results of the research conducted by [4], [6], [14], [17] among other where they discovered the impact of accounting control practices in enhancing the performance of firms in their jurisdictions.

The model demonstrates robustness, with the R-squared value indicating that a large proportion of the variation in corporate performance can be explained by these accounting control mechanisms. Additionally, the results from the Panel Unit Root Test confirm the stationarity of the variables, ensuring their stability over time and reinforcing the reliability of the findings.

4.5. Implications of the Findings

The implications of these findings are profound for both corporate management and policymakers in the oil and gas sector in Nigeria. First, it highlights the crucial role that comprehensive accounting controls play in enhancing the profitability of multinational firms. Companies that invest in preventive, detective, and corrective control practices are likely to enjoy better financial outcomes, which can also improve investor confidence. Second, the study provides actionable insights for policymakers, who may consider developing or enforcing regulations that mandate stronger accounting control mechanisms to ensure sustainable corporate performance in the sector. Moreover, it suggests that oil and gas companies in Nigeria could enhance their competitive advantage by adopting more rigorous accounting controls to navigate the complex regulatory and operational environment.

The contingency theory posits that organizational effectiveness depends on the alignment between internal and external factors. In this study, the adoption and effectiveness of accounting control mechanisms (preventive, detective, and corrective) depend on factors such as the operational environment and corporate strategy. The results align with this theory by showing that firms with robust accounting control mechanisms, suited to their complex operating environments, achieve higher performance. The variability in the implementation of these controls across firms further supports the notion that companies must tailor their control systems based on contextual factors to enhance effectiveness. Resource Dependency Theory emphasizes that organizations rely on external resources to function and that their strategies aim to manage external dependencies. In this context, accounting control mechanisms serve as tools for managing dependencies, such as regulatory compliance and operational risks, which are critical in the oil and gas industry. The findings suggest that companies with stronger control mechanisms are better equipped to manage these dependencies, thus improving their performance.

This study provides a novel contribution by specifically analyzing the impact of accounting control mechanisms on the corporate performance of oil and gas companies in Nigeria, a sector that faces unique regulatory and operational challenges. Previous research has focused on accounting controls in broader contexts, but this study delves into how preventive, detective, and corrective practices specifically affect profitability in a high-stakes industry. Additionally, the use of a Random Effects Generalized Least Squares model in this sector is a relatively new approach, offering robust findings that highlight the importance of tailored accounting control mechanisms.

5. Conclusions

In conclusion, the study demonstrates that preventive, detective, and corrective accounting control mechanisms significantly enhance the corporate performance of listed oil and gas companies in Nigeria. The positive effect of these practices on net profit margins underscores the

importance of adopting comprehensive accounting controls to improve profitability. This research contributes to the understanding of how targeted accounting practices can help firms navigate the complexities of the oil and gas sector, providing a blueprint for improving financial outcomes.

This study offers several valuable contributions to the existing body of knowledge. Firstly, it provides empirical evidence on how preventive, detective, and corrective accounting control mechanisms directly influence the profitability of oil and gas companies in Nigeria. By analyzing these specific control practices, the study demonstrates the significant role they play in enhancing corporate performance, thus contributing to a deeper understanding of how accounting controls can improve financial outcomes in the sector. The research advances methodological knowledge by employing the Random Effects Generalized Least Squares model. This approach is particularly effective in examining the relationship between accounting control practices and corporate performance. The application of this model in a sector as complex as the oil and gas industry offers a rigorous analytical framework, making the study's findings both robust and reliable. The research underscores the importance of adopting a sector-specific approach when assessing the effectiveness of accounting control mechanisms. It emphasizes that industries like oil and gas, which operate in highly regulated and complex environments, require tailored accounting control strategies to maintain financial stability and profitability. By focusing on these sector-specific challenges, the study provides a nuanced understanding of how accounting controls can be adapted to meet the unique demands of different industries.

Based on the findings of this study, several recommendations are put forward. First, listed oil and gas companies in Nigeria should prioritize strengthening detective accounting control mechanisms. The research shows that detective controls have the most significant positive effect on corporate profitability. Companies should, therefore, invest in advanced technologies and processes that enhance their ability to detect irregularities early. This would improve their capacity to mitigate risks and boost overall financial performance. It is also recommended that companies adopt a balanced approach to accounting control mechanisms. While detective controls are vital, preventive and corrective controls are also essential for comprehensive corporate oversight. By implementing all three control practices—preventive, detective, and corrective—companies can create a more robust accounting framework that will contribute to sustained profitability and operational efficiency. Finally, policymakers should focus on developing industry-specific guidelines that mandate the adoption of strong accounting control mechanisms in the oil and gas sector. Such policies would ensure that companies consistently implement preventive, detective, and corrective controls, thereby promoting financial stability and compliance with regulatory standards across the industry. By establishing clear accounting standards, policymakers can help enhance the corporate performance of oil and gas companies in Nigeria.

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