



Effect of Whistleblowing Mechanisms on the Financial Reporting Quality of Quoted Multinational Oil and Gas Firms in Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2023/v23i241188

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/110640>

Original Research Article

Received: 10/10/2023
Accepted: 14/12/2023
Published: 18/12/2023

ABSTRACT

In the dynamic landscape of corporate governance, the role of whistleblowing mechanisms has become increasingly prominent, serving as a crucial tool in promoting transparency, accountability, and ethical conduct within organizations. This study aimed to explore the effect of whistleblowing mechanisms on financial reporting quality in quoted multinational oil and gas firms in Nigeria. This study utilized a qualitative method to examine financial data, incorporating qualitative perspectives gathered through the distribution of questionnaires among accountants and key stakeholders of quoted multinational oil and gas firms in Nigeria. Out of the 185 questionnaires disseminated, 168 were appropriately completed and returned. The analysis of the collected data in this research employed both descriptive and inferential statistical methods. The study found a positive and

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significant correlation between well-established whistleblowing mechanisms and improved financial reporting quality. Specifically, Reporting Mechanisms (REM), Protection Mechanisms (PRM), and Investigation Mechanisms (INM) were individually analyzed, and all demonstrated a statistically significant and positive effect on financial reporting quality. The findings highlight the importance of effective reporting processes, protection measures for whistleblowers, and robust investigation procedures in enhancing transparency, accountability, and the reliability of financial information within multinational oil and gas firms. In conclusion, the study affirms that a well-functioning whistleblowing system, comprising reporting, protection, and investigation mechanisms, is crucial for enhancing financial reporting quality in the multinational oil and gas firms in Nigeria. The study recommends that the multinational oil and gas sector should invest in and enhance reporting mechanisms to ensure effective and reliable channels for employees to report concerns related to financial matters.

Keywords: Whistleblowing mechanism; financial reporting quality; multinational oil; gas firms; Nigeria; transparency; accountability; reliability.

1. INTRODUCTION

Financial reporting plays a pivotal role in providing relevant information to stakeholders, enabling them to make informed decisions about investments [1]. However, the prevalence of financial fraud and misreporting has raised concerns about the accuracy and reliability of financial statements [1]. In the dynamic landscape of corporate governance, the role of whistleblowing mechanisms has become increasingly prominent, serving as a crucial tool in promoting transparency, accountability, and ethical conduct within organizations. As multinational oil and gas firms operating in Nigeria navigate complex regulatory environments and heightened scrutiny, the integration of effective whistleblowing mechanisms becomes paramount for ensuring the integrity of financial reporting practices [2,3].

Nigeria, with its rich endowment of natural resources, has witnessed substantial growth in the oil and gas sector, attracting multinational corporations seeking to capitalize on the nation's vast energy reserves. Amidst this backdrop, concerns about corporate governance, financial transparency, and the quality of financial reporting have gained significant attention [4]. The establishment and efficacy of whistleblowing mechanisms emerge as central components in mitigating the risks associated with financial misconduct, fraudulent activities, and the manipulation of financial information [5,6]. The importance of robust financial reporting cannot be overstated, given the significant economic impact of this sector. Whistleblowing mechanisms have emerged as crucial tools in detecting and preventing financial irregularities [7,8,9,10].

This study aims to explore the effect of whistleblowing mechanisms on financial reporting quality in quoted multinational oil and gas firms in Nigeria. Through this study, we aim to provide valuable insights into the interplay between whistleblowing mechanisms and financial reporting quality, offering practical implications for multinational oil and gas firms, regulatory authorities, and scholars in the field of corporate governance. As organizations strive to maintain trust among stakeholders and foster sustainable business practices, understanding the dynamics of whistleblowing and its impact on financial reporting quality becomes indispensable and to contribute to the existing body of knowledge by conducting a comprehensive analysis of the impact of whistleblowing mechanisms on financial reporting quality within the specific context of multinational oil and gas firms in Nigeria. By focusing on quoted firms, the study not only addresses the intricacies of financial reporting practices but also considers the unique challenges faced by organizations operating in the multinational arena. The exploration of how whistleblowing mechanisms influence financial reporting quality in this sector is particularly timely given the global emphasis on corporate responsibility and ethical business practices.

2. LITERATURE REVIEW

This section provides an overview of the existing literature on whistleblowing mechanisms, financial reporting quality, and the oil and gas industry in Nigeria. It highlights the theoretical foundations and empirical evidence supporting the positive relationship between effective whistleblowing mechanisms and improved financial reporting quality.

2.1 Whistleblowing Mechanisms

A whistleblowing mechanism refers to a structured and formalized system within an organization that enables individuals, often employees, to report concerns, wrongdoing, unethical behavior, or any other misconduct occurring within the organization [10]. Whistleblowing mechanisms are established to provide a secure and confidential avenue for individuals to disclose information without fear of retaliation [11,12]. The primary objectives of whistleblowing mechanisms are to promote transparency, accountability, and ethical conduct within an organization [13]. Whistleblowing mechanisms typically ensure the confidentiality of the whistleblower's identity, allowing individuals to report concerns without the fear of reprisals. Many whistleblowing mechanisms offer the option for individuals to report anonymously, further protecting their identity and encouraging open disclosure [14].

Whistleblowing mechanisms should be easily accessible to individuals throughout the organization. This may involve providing multiple reporting channels such as hotlines, online platforms, or dedicated email addresses. A robust whistleblowing mechanism includes provisions to protect individuals who stand to maintain uprightness and transparency [15]. Whistleblowing mechanisms typically involve a structured process for investigating reported concerns. This may include an internal review committee, compliance department, or external parties tasked with impartially assessing the validity of the allegations [16]. Whistleblowing mechanisms often include procedures for providing feedback to whistleblowers about the outcome of investigations. Clear communication helps build trust in the system. Organizations may establish explicit policies outlining legal protections available to whistleblowers under relevant laws and regulations. This may include protections against termination, demotion, or other adverse employment actions. Whistleblowing mechanisms play a crucial role in fostering a culture of integrity and accountability within organizations. These mechanisms serve as a vital tool for detecting and addressing misconduct early on, ultimately contributing to the overall health and ethical standards of an organization [17,18].

2.2 Reporting Mechanisms

Reporting mechanisms, in the context of whistleblowing, refer to the channels or systems

through which individuals can disclose information about perceived wrongdoing, misconduct, or unethical behavior within an organization. These mechanisms are established to provide a structured and secure process for whistleblowers to report their concerns [10]. Organizations often set up confidential hotlines or helplines that whistleblowers can call to report concerns anonymously. This allows individuals to share information without fear of retaliation. Whistleblowers can choose to report misconduct to external entities, such as government agencies, regulatory bodies, or law enforcement authorities [12]. In some cases, whistleblowers may opt to disclose information to journalists or media outlets to bring attention to the wrongdoing. This is usually considered a last resort. Establishing effective reporting mechanisms is crucial for fostering a culture of transparency, accountability, and ethical behavior within an organization. It provides a structured process for addressing and resolving concerns while offering protection to those who come forward with information about misconduct [11].

2.3 Protection Mechanisms

Protection mechanisms in the context of whistleblowing refer to measures and safeguards put in place to ensure the well-being and rights of individuals who report wrongdoing or misconduct within an organization. Whistleblowers often face risks, including retaliation, harassment, or other adverse consequences, as a result of their disclosures. Protection mechanisms are designed to encourage whistleblowers to come forward without fear of reprisals. Organizations commit to non-retaliation policies, clearly stating that individuals who report wrongdoing will not face negative consequences or reprisals as a result of their disclosure [11]. Organizations communicate anti-retaliation policies to employees, ensuring that they are aware of the protections in place and feel confident in coming forward. Many jurisdictions have laws that provide legal protections for whistleblowers and these jurisdictions have established anonymous whistleblower programs that allow individuals to report misconduct without revealing their identities. Protection mechanisms are integral to creating a safe and supportive environment for whistleblowers, promoting ethical behavior, and maintaining organizational integrity. Implementing comprehensive safeguards demonstrates an organization's commitment to addressing wrongdoing while fostering trust and transparency [12].

2.4 Investigation Mechanisms

Investigation mechanisms in the context of whistleblowing refer to the processes and procedures put in place by organizations to thoroughly examine and assess the allegations or disclosures made by whistleblowers. When a whistleblower reports wrongdoing or misconduct, it triggers an investigation to determine the validity of the claims and, if necessary, take appropriate corrective actions. Organizations should have a system in place to acknowledge and respond promptly to whistleblower reports [15]. This ensures that the investigation process begins in a timely manner. The investigative team collects relevant documents, data, and other evidence related to the reported misconduct. This may involve interviews with individuals involved or with knowledge of the situation. Analyzing data and financial records may be necessary in cases involving financial misconduct. This step helps corroborate or refute the information provided by the whistleblower. Ensuring that the investigation process complies with applicable laws and regulations is essential [17].

Legal considerations may include data privacy, employment laws, and whistleblower protection statutes. Once the investigation is complete, a detailed report is prepared, summarizing the findings and conclusions. This report may include recommendations for corrective actions or improvements to prevent similar issues in the future. If the investigation reveals misconduct, organizations must take appropriate corrective actions [12]. This may include disciplinary measures, policy changes, or other steps to address the identified issues. Effective investigation mechanisms are essential for organizations to address and rectify instances of wrongdoing, maintain ethical standards, and build a culture of integrity. They demonstrate a commitment to accountability and help ensure that the organization learns from the reported incidents [18].

2.5 Financial Reporting Quality

Financial reporting quality refers to the extent to which financial information presented by a company in its financial statements accurately and faithfully reflects the economic reality of its underlying transactions and events [19]. High financial reporting quality implies that the financial statements are reliable and transparent, and provide users with a true and fair view of the company's financial position, performance, and

cash flows [1]. Financial statements should be free from material errors or omissions, providing users with dependable information for decision-making. Information presented in financial statements should be pertinent to the needs of users, helping them make informed judgments and assessments about the company [20].

Financial reporting quality involves clear and understandable presentation of financial information, making it accessible to a diverse range of stakeholders, including investors, creditors, analysts, and regulators [2]. Financial statements should enable users to compare the company's performance and financial position across different periods and against industry peers, fostering a better understanding of its relative standing [19]. Consistency in accounting policies and presentation methods from one period to another enhances comparability and contributes to the reliability of financial reporting. High financial reporting quality is critical for maintaining the trust of stakeholders and ensuring the efficient functioning of capital markets [3]. Companies with transparent and reliable financial reporting are more likely to attract investors, obtain favorable financing terms, and build a positive reputation in the business community. Conversely, low financial reporting quality can lead to misinformation, erode investor's confidence, and result in negative consequences for the company's financial health and reputation [21,20].

2.6 Accountability

In the context of financial reporting quality, accountability refers to the obligation of an organization to provide accurate and transparent financial information that is consistent with applicable accounting standards and regulations. It involves the acknowledgment of responsibility for the financial statements and the commitment to ensure that they fairly represent the financial position, performance, and cash flows of the entity [21]. Accountable financial reporting entails adhering to established accounting standards and principles. According to Kaplan [3] companies are responsible for preparing their financial statements in accordance with recognized frameworks, such as Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS).

Accountability requires that financial statements provide a truthful and accurate representation of the company's financial position and

performance. Any deviations from accuracy may lead to misinformation and undermine the trust of stakeholders. Organizations are accountable for implementing and maintaining effective internal controls over financial reporting. Internal controls help ensure the reliability of financial information and prevent material misstatements [22].

Accountability involves providing clear and comprehensive disclosures in the financial statements and accompanying notes. Transparency ensures that users have access to relevant information necessary to understand the financial performance and risks of the company. External audits play a crucial role in holding organizations accountable for their financial reporting. Engaging external auditors to review and validate financial statements provides an independent assessment of their accuracy and compliance [1]. Accountable financial reporting requires organizations to be responsive to the needs of stakeholders. This includes addressing inquiries, providing additional information when necessary, and fostering open communication with investors, creditors, and regulatory authorities. Accountability in financial reporting quality encompasses the responsibility of organizations to provide accurate, transparent, and reliable financial information in compliance with established standards and regulations. It reflects a commitment to ethical conduct, oversight, and a continuous improvement mindset to maintain the trust and confidence of stakeholders [19].

2.7 Theoretical Framework

In this research, the ethical framework and moral philosophy proposed by Kant in 1964 [23] were employed. According to Kantian theory, individuals have a moral obligation to convey the truth and expose any misconduct as an inherent aspect of their rationality. Building on this concept, De-George [24] supports the idea that employees are morally obliged to act ethically and conscientiously reveal wrongdoing. Drawing from these perspectives, it is argued that accountants and those responsible for preparing financial statements possess a moral entitlement to act in the public interest. By demonstrating a dedication to professionalism, they uphold public trust, aligning with their ethical duty to contribute to the greater good.

2.8 Empirical Review

Yusoff et al. [6] conducted a study to assess the whistleblowing intention among employees

working in Halal-certified food manufacturing companies. They examined various factors influencing this intention, such as attitude, subjective norm, perceived behavioral control, perceived organizational support, religious obligation, knowledge, personal cost reporting, personal responsibility, and seriousness of wrongdoing. The study involved 210 employees from these companies in Selangor, who responded to a structured questionnaire. The findings revealed a high level of whistleblowing intention among the employees, and most of the factors that influenced their decision to blow the whistle had positive and favorable mean scores. The relatively low mean score for personal cost reporting indicated that employees perceived minimal personal costs associated with whistleblowing.

Daffa et al. [11] aimed to investigate the impact of leader support on whistleblowing intentions among employees in BMT (Islamic cooperatives). Their research was based on descriptive qualitative research and involved in-depth interviews. The study found that the whistleblowing system was not fully implemented in some companies, suggesting that employees might not be aware of the system. In contrast, in one company, the leader was familiar with whistleblowing but did not fully understand it, resulting in the implementation being carried out differently. The study emphasized the importance of leader support in encouraging reporting fraud, as it can positively influence employees' intentions to blow the whistle.

Putra et al. [9] examined the mediating role of Fraud Prevention in the relationship between Internal Audit, Risk Management, Whistleblowing Systems, Big Data Analytics, and the prevention of financial crime behavior. The study addressed the limited strategic formulation in risk management, internal audit, whistleblowing system, and big data analytics for early fraud detection and prevention of financial crime behavior in Indonesia, particularly in various regions such as Aceh, North Sumatra, Riau, Kepulauan Riau, South Sumatra, Bangka Belitung, Jambi, West Sumatra, Bengkulu, and Lampung. The research was informed by a comprehensive literature review of 90 articles from leading academic journals published between the early 1990s and 2021. The study underscored the importance of Fraud Prevention efforts as a mediator in the relationship between Internal Audit, Risk Management, Whistleblowing System, and Big Data Analytics, aiming to address the issue of fraud and financial crime

behavior in various Indonesian regional governments.

Agbogun et al. [21] conducted a study to examine the impact of whistleblowing on accountability within the public sector. They employed an ex post facto design and collected data from primary sources. A total of 150 questionnaires were distributed, and 145 were retrieved and used for data analysis. The study established a simple regression model and found a significant relationship between whistleblowing mechanisms and accountability in public sector organizations.

Erin and Bamigboye [12] investigated the influence of the whistleblowing framework on earnings management in Nigerian financial firms listed on the Nigerian Stock Exchange from 2013 to 2017. The study utilized a sample of 50 financial institutions in Nigeria and incorporated insights from legitimacy theory. They developed a whistleblowing index to measure the effectiveness of the whistleblowing framework and accounted for other determinants such as audit committee size, risk committee independence, audit committee independence, external audit size, board composition, firm size, and international ownership. Earnings management was assessed through discretionary accruals. The study employed content analysis and the generalized method of moments for data analysis. The findings indicated that Nigerian financial firms have increased their efforts in whistleblowing disclosure, leading to a significant reduction in earnings management practices.

Ulfah et al. [10] analyzed factors influencing the reporting of fraud (whistleblowing) within organizations, focusing on the choice between internal and external reporting channels. The study aimed to explore fraud within the context of Indonesian culture and developed hypotheses based on predictors of whistleblowing intention. Data was collected from 2,214 civil servants in Indonesian regency, city, and provincial governments through survey letters and direct messages on social media. A logistic regression model was employed to analyze the data and test the hypotheses. The findings revealed that whistleblowing, individual factors, and situational factors significantly predicted the selection of reporting channels by civil servants in Indonesia. The study also found that fear of retaliation had a stronger influence compared to public service motivation, resulting in limited opportunities for alternative whistleblowing reporting channels.

Imang et al. [14] analyzed whistleblowing systems for the prevention of financial reporting fraud and examined the moderating role of ethical behavior. The study utilized a descriptive research design and survey method, targeting students from the Faculty of Economics at Pekalongan University. The sample was determined using purposive sampling, and multiple linear regression analysis was employed for data analysis. The study concluded that whistleblowing systems had a positive influence on the prevention of financial reporting fraud, and their influence on trends in financial fraud through ethical behavior was deemed unacceptable.

Fasua and Osifo [13] examined effective whistleblowing mechanisms and audit committees in the Nigerian banking sector. The study utilized a multivariate regression technique and logistic regression analysis to test the proposed hypotheses. The study suggested that the Nigerian banking sector with independent, well-structured, expert, and diligent audit committees is more likely to establish effective whistleblowing mechanisms. The findings revealed a strong association between effective whistleblowing mechanisms in the Nigerian banking sector and audit committee independence, audit committee financial expertise, and audit committee meetings. The study emphasized the need to strengthen the whistleblowing mechanism within the Nigerian banking sector.

Furthermore, the majority of existing literature on whistleblowing in developed nations has primarily focused on financial institutions. In developing countries such as Nigeria, only a limited number of studies have explored whistleblowing, particularly in financial institutions, and these studies have been met with considerable controversy. Notably, there is a noticeable gap in research as no known study has specifically examined whistleblowing, particularly within public sector organizations in Nigeria. Additionally, none of the reviewed studies have investigated the impact of whistleblowing on financial information quality in the context of oil and gas firms in Nigeria. Therefore, this study aims to fill this gap by investigating the influence of whistleblowing on the quality of financial information in listed oil and gas firms in Nigeria. The following hypotheses were formulated in order to direct the flow of this work.

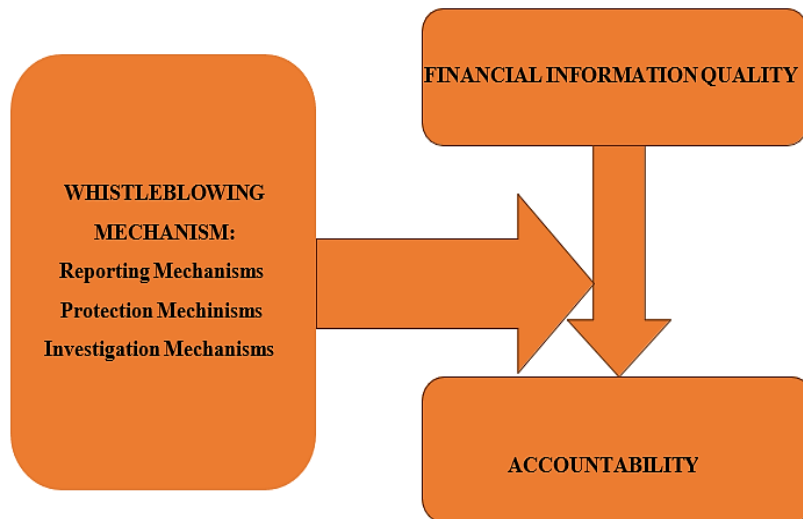


Fig. 1. Interaction between the independent variable (whistleblowing) and dependent variable (financial reporting quality) in oil and gas firms quoted in Nigeria.

Source: Researcher's Concept (2023)

H01: Whistle-blowing has no significant effect on the financial reporting quality of multinational oil and gas firms in Nigeria.

2.9 Conceptual Framework

Fig. 1 shows the interaction between the independent variable (whistleblowing) and dependent variable (financial reporting quality) in oil and gas firms quoted in Nigeria.

3. RESEARCH METHODOLOGY

The study utilized a qualitative method to examine financial data, incorporating qualitative perspectives gathered through the distribution of questionnaires among accountants and key stakeholders of quoted multinational oil and gas firms in Nigeria. Out of the 185 questionnaires disseminated, 168 were appropriately completed and returned. The analysis of the collected data in this research employed both descriptive and inferential statistical methods.

3.1 Reliability Test

As indicated in Table 1, the Cronbach Alpha values for the various dimensions investigated in this study serve as reliable indicators of the internal consistency of the scale items. The dimension associated with Reporting Mechanisms (REM) exhibited strong internal consistency, with a Cronbach Alpha of 0.830, encompassing a set of 5 items. Similarly, the dimension related to Protection Mechanisms (PRM) demonstrated a Cronbach Alpha of 0.737 across 5 items. The dimension linked to Investigation Mechanisms (INM) achieved solid internal consistency, with a Cronbach Alpha of 0.756, based on 5 items. Additionally, the dimension concerning Financial Reporting Quality (FRQ) demonstrated robust internal consistency, with a Cronbach Alpha of 0.792, covering 5 items. These findings affirm the strong internal consistency of all scale items, with Cronbach Alpha values surpassing the 0.7 threshold.

Table 1. Reliability test results

S/N	Variable	No. of Items	Cronbach's Alpha
1	Reporting Mechanisms (REM)	5	0.830
2	Protection Mechanisms (PRM)	5	0.737
3	Investigation Mechanisms (INM)	5	0.756
4	Financial Reporting Quality (FRQ)	5	0.792

Source: Author's Computation (2023)

4. RESULTS AND ANALYSIS

This section presents the findings of the study, highlighting the effect of whistleblowing mechanisms on financial reporting quality in multinational oil and gas firms in Nigeria.

4.1 Descriptive Statistics

Table 2 furnishes a comprehensive overview of the descriptive statistics concerning the variables scrutinized in this study. These variables include Reporting Mechanisms (REM), Protection Mechanisms (PRM), Investigation Mechanisms (INM), and Financial Reporting Quality (SRB). The minimum and maximum values for these variables span from 1 to 5, reflecting the range of responses within this 5-point scale. The average values for these variables offer insights into the central tendency of responses. On average, respondents rated REM at 4.9286, PRM at 4.8155, INM at 4.8036, and FRQ at 4.6964. These averages imply that, on average, respondents perceived these dimensions to be rated relatively high on the 5-point scale.

The Standard Deviation values indicate the degree of variability or dispersion in the responses. For REM, the Standard Deviation was 0.53131, for PRM it was 0.73931, for INM it was 0.79111, and for FRQ, it was 0.70718. Higher Standard Deviation values suggest greater variability in responses. Variance Statistic values reflect the extent of dispersion or variability in the dataset. For REM, the Variance Statistic was 0.282, for PRM it was 0.547, for INM it was 0.626, and for FRQ, it was 0.500. Higher variance values indicate increased variability in the dataset.

Skewness Statistic values provide insights into the symmetry of the data distribution. Negative skewness values for REM, PRM, INM, and FRQ (-7.347, -3.830, -3.894, and -3.603 respectively) suggest that the data is skewed to the left, with the tail on the left side of the distribution being longer or fatter. Kurtosis Statistic values reflect the peakedness or flatness of the data distribution. Higher kurtosis values indicate a more peaked distribution. In this case, REM exhibits a kurtosis value of 52.606, PRM has a kurtosis

value of 13.102, INM has a kurtosis value of 13.752, and FRQ shows a kurtosis value of 15.710.

4.2 Correlation Analysis

Table 3 presents the Pearson correlations matrix, illustrating the relationships among the independent variables. The purpose of this correlation analysis was to examine the associations between the variables under investigation. The results in the correlation matrix indicate a weak positive correlation of 0.210 between Reporting Mechanisms (REM) and Protection Mechanisms (PRM). Regarding the association between Investigation Mechanisms (INM) and Reporting Mechanisms (REM), there is a moderate yet positive correlation of 0.650, while the correlation between Protection Mechanisms (PRM) and Investigation Mechanisms (INM) shows a weak positive correlation of 0.470. These findings suggest that an increase in one variable corresponds to an increase in another. Importantly, it is crucial to note that the observed level of correlation does not reach a threshold that would result in significant collinearity issues, which could otherwise distort the accuracy of coefficient standard errors.

4.3 Multicollinearity Test

The research performed a Variance Inflation Factor (VIF) assessment to measure the degree of multicollinearity among the study's variables. This examination aimed to reassess the level of correlation among the independent variables within the framework of a multiple regression analysis. VIF quantifies the extent to which the variance of a coefficient estimate is inflated due to the linear interdependence among the independent variables included in the model. The VIF results, outlined in Table 4, indicate that the VIF values for all independent variables are relatively modest. The highest VIF value is associated with the Investigation Mechanisms (INM) variable, standing at 2.170, a value well below the critical threshold of 10. This observation suggests the

absence of significant multicollinearity within the model, enhancing the credibility and stability of the coefficients. This finding aligns with the results of the correlation analysis.

Table 2. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosis		
Statistic		Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
REM	168	1.00	5.00	4.9286	.53131	.282	-7.347	.187	52.606	.373
PRM	168	1.00	5.00	4.8155	.73931	.547	-3.830	.187	13.102	.373
INM	168	1.00	5.00	4.8036	.79111	.626	-3.894	.187	13.752	.373
FRQ	168	1.00	5.00	4.6964	.70718	.500	-3.603	.187	15.710	.373
Valid N (listwise)	168									

Source: Author's Computation (2023)

Table 3. Correlations analysis

		Reporting Mechanisms (REM)	Protection Mechanisms (PRM)	Investigation Mechanisms (INM)
Reporting Mechanisms (REM)	Pearson Correlation	1	.210**	.650**
	Sig. (2-tailed)		.006	.000
	N	168	168	168
Protection Mechanisms (PRM)	Pearson Correlation	.210**	1	.470**
	Sig. (2-tailed)	.006		.000
	N	168	168	168
Investigation Mechanisms (INM)	Pearson Correlation	.650**	.470**	1
	Sig. (2-tailed)	.000	.000	
	N	168	168	168

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Author's Computation (2023)

Table 4. Multicollinearity test

Collinearity Statistics			
Model		Tolerance	VIF
1	Reporting Mechanisms (REM)	.565	1.768
	Protection Mechanisms (PRM)	.763	1.310
	Investigation Mechanisms (INM)	.461	2.170
a. Dependent Variable: Financial Reporting Quality (FRQ)			

Source: Author's Computation (2023)

Table 5. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.759 ^a	.575	.568	.46503		
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48.053	3	16.018	74.069	.000 ^b
	Residual	35.465	164	.216		
	Total	83.518	167			

a. Dependent Variable: Financial Reporting Quality (FRQ)

b. Predictors: (Constant), Investigation Mechanisms (INM), Protection Mechanisms (PRM), Reporting Mechanisms (REM)

Source: Author's Computation (2023)

Table 6. Coefficients correlation analysis

Model	Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error		Beta	T	Sig.
1	(Constant)	-.526	.384		-1.368	.173
	Reporting Mechanisms (REM)	.723	.090	.543	8.028	.000
	Protection Mechanisms (PRM)	.172	.056	.179	3.082	.002
	Investigation Mechanisms (INM)	.173	.067	.194	2.584	.011

a. Dependent Variable: Financial Reporting Quality (FRQ)

Source: Author's Computation (2023)

4.4 Regression Analysis of the Effect of Whistleblowing Mechanisms on the Financial Reporting Quality in Quoted Multinational Oil and Gas Firms in Nigeria

The results of the regression analysis, which aimed to evaluate the impact of whistleblowing mechanisms on the financial reporting quality in quoted multinational oil and gas firms in Nigeria, are detailed in Tables 5 and 6. Table 5 presents the coefficient of determination (R-squared), indicating that approximately 58% of the variability in Financial Reporting Quality can be collectively explained by Whistleblowing Mechanisms, after adjustments for model complexity. The F-statistics value of 74.069, accompanied by a probability value of 0.000 (statistically significant at 5%), confirms the overall significance of the model. This implies that whistleblowing mechanisms, encompassing reporting, protection, and investigation mechanisms, reliably predict financial reporting quality in these firms, while the remaining 42% accounts for factors not considered in the study.

Table 6 further details the statistical significance of each parameter associated with the impact of

whistleblowing mechanisms on financial reporting quality. The negative coefficient of -1.368 units, with a probability value of 0.000, indicates a constant effect on financial reporting quality. Additionally, Reporting Mechanisms (REM) exhibit a statistically significant positive coefficient of 8.028, signifying that a one-unit increase in reporting mechanisms leads to a substantial 8.028-unit increase in financial reporting quality. The significance of this relationship is reinforced by a probability value of 0.000. Similarly, Protection Mechanisms (PRM) demonstrate a statistically significant positive coefficient of 3.082, suggesting that a one-unit increase in protection mechanisms leads to a 3.082-unit increase in financial reporting quality (probability value of 0.002). Lastly, Investigation Mechanisms (INM) display a statistically significant positive coefficient of 2.584, indicating that a one-unit increase in investigation mechanisms corresponds to a 2.584-unit increase in financial reporting quality, with a probability value of 0.011.

5. DISCUSSION OF FINDINGS

The results of the regression analysis aimed to explore the effect of whistleblowing mechanisms

on the financial reporting quality of quoted multinational oil and gas firms in Nigeria. The results found that the impact of whistleblowing mechanisms, encompassing reporting mechanisms, protection mechanisms, and investigation mechanisms, had a positive and significant effect on the financial reporting quality of quoted multinational oil and gas firms in Nigeria. The findings indicate that when whistleblowing mechanisms are well-established, including effective reporting channels, protective measures for whistleblowers, and robust investigation processes, there is a notable improvement in the quality of financial reporting among multinational oil and gas firms operating in Nigeria. This correlation underscores the importance of whistleblowing mechanisms in promoting transparency, accountability, and the reliability of financial information within these organizations.

The results further showed the statistical significance of individual parameters concerning the roles of whistleblowing mechanisms in relation to financial reporting quality. The results indicate that Reporting Mechanisms (REM) had a significant and positive impact on the financial reporting quality. This result underscores the importance of having robust and effective reporting processes in place within an organization to enhance the reliability and integrity of financial reports. Also, the findings showed that Protection Mechanisms (PRM) had a significant and positive effect on financial reporting quality. The results of the study suggest that the specific Protection Mechanisms being assessed had a meaningful and positive impact on enhancing the quality of financial reporting. This underscores the importance of having robust protection measures to encourage individuals to report concerns without fear of retaliation, ultimately contributing to better financial reporting quality.

Lastly, Investigation Mechanisms (INM) demonstrated a statistically significant and positive effect on the quality of financial reporting. The results of the study suggest that the specific Investigation Mechanisms being assessed had a meaningful and positive impact on enhancing the quality of financial reporting. This underscores the importance of having robust investigation processes to address reported concerns, contributing to better financial reporting quality.

6. CONCLUSION AND RECOMMENDATION

The regression analysis conducted on quoted multinational oil and gas firms in Nigeria aimed to investigate the impact of whistleblowing mechanisms, including reporting, protection, and investigation mechanisms, on financial reporting quality. The study found a positive and significant correlation between well-established whistleblowing mechanisms and improved financial reporting quality. Specifically, Reporting Mechanisms (REM), Protection Mechanisms (PRM), and Investigation Mechanisms (INM) were individually analyzed, and all demonstrated a statistically significant and positive effect on financial reporting quality. The findings highlight the importance of effective reporting processes, protection measures for whistleblowers, and robust investigation procedures in enhancing transparency, accountability, and the reliability of financial information within multinational oil and gas firms. In conclusion, the study affirms that a well-functioning whistleblowing system, comprising reporting, protection, and investigation mechanisms, is crucial for enhancing financial reporting quality in the context of multinational oil and gas firms in Nigeria. The positive impact observed in each component emphasizes the need for organizations to establish and maintain robust mechanisms that encourage employees to report concerns, provide protection from retaliation, and ensure thorough investigations. These measures collectively contribute to a more reliable and transparent financial reporting environment.

The following recommendations were put forward:

- i. Organizations in the multinational oil and gas sector should invest in and enhance Reporting Mechanisms (REM) to ensure effective and reliable channels for employees to report concerns related to financial matters.
- ii. Implementing and strengthening Protection Mechanisms (PRM) is essential to create an environment where individuals feel secure in reporting without fear of retaliation, thereby fostering a culture of transparency.
- iii. Organizations should prioritize the development and maintenance of robust Investigation Mechanisms (INM) to address reported concerns promptly and

thoroughly, contributing to improved financial reporting quality.

7. CONTRIBUTIONS TO THE BODY OF KNOWLEDGE

This study contributes significantly to the existing body of knowledge by empirically demonstrating the positive impact of whistleblowing mechanisms on financial reporting quality within multinational oil and gas firms. The detailed analysis of Reporting, Protection, and Investigation Mechanisms provides valuable insights for organizations seeking to strengthen their internal processes and align with best practices in promoting transparency and accountability. The findings enhance the understanding of the specific roles these mechanisms play in the context of the Nigerian oil and gas sector, offering practical implications for organizations aiming to improve their financial reporting practices.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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