



**MODERATING EFFECT OF AUDIT QUALITY ON FIRM SIZE AND  
TIMELINESS OF FINANCIAL REPORTING AMONG LISTED INSURANCE  
FIRMS IN NIGERIA**

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**Abstract**

This study investigates the effect of firm size on the timeliness of financial reporting of listed insurance firms in Nigeria, with particular emphasis on the moderating role of audit quality. An ex post facto research design was adopted, utilizing balanced panel data comprising 190 firm-year observations from 19 insurance firms listed on the Nigerian Exchange Group over a ten-year period. Financial reporting timeliness was measured as the number of days between the financial year-end and the date of release of audited financial statements. Audit quality was proxied by audit firm size, measured as Big Four and non-Big Four auditors. Descriptive statistics, correlation analysis, and relevant diagnostic tests were conducted. Given the count nature of the dependent variable and evidence of overdispersion, panel negative binomial regression was employed for hypothesis testing. The findings reveal that human resource size significantly influences the timeliness of financial reporting. The results further indicate that audit quality significantly moderates the relationships between human resource size and financial reporting timeliness.

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**Keywords:** Financial Reporting Timeliness, Audit Quality, Firm Size, Negative Binomial Regression, Insurance Firms, Nigeria.

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## Introduction

According to the International Accounting Standards Board, (2018), the major objective of financial reporting is to provide high-quality financial information concerning economic entities, primarily financial in nature and useful for economic decision making. Financial statements are organized representation of performance and financial position of an organization. The effectiveness of financial markets is significantly impacted by the quality of financial reports provided by the reporting organizations. One of the qualitative traits that improve the usefulness of financial statement is timeliness (Ahmed, 2022). Corporate financial reporting has become more critical than ever, driven by rapid advancements in technology and the increasing complexity of business operations.

Timeliness of financial reports is the availability of information needed by decision makers for useful decision making before it loses its capacity to influence decisions, (IASB, 2018). Timely and qualitative financial reporting by public companies in Nigeria has been a challenge over the years and overcoming this is still a challenging task especially with the adoption of International Financial Reporting Standards (IFRS) and harmonization of accounting standards all over the world (Gabriel & Ken-Otokiti, 2025). The financial sector of the Nigeria economy was branded as the high performers and the most active on the floor of the Nigeria Exchange Group (NGX), yet some disturbing trends persist in respect to the time taken to release their financial reports to the public, (Olateru-Olagbegi, et al. 2023).

What comprises timely financial information varies by country and is a product of a country's legal and regulatory requirements (Turel, 2021). In Nigeria, the law requires all public limited liability companies to submit their financial statements to the Corporate Affairs Commission within forty-two days of their annual general meeting, as stipulated by the Companies and Allied Matters Act (CAMA, 2020). Furthermore, the Securities and Exchange Commission (SEC) and the Nigerian Exchange Group (NGX) mandate that audited financial statements be filed within three months of the financial year-end and be published in at least one national newspaper after receiving approval from the Stock Exchange, (Muideen & Isiaka, 2019)

The Companies and Allied Matters Act, (2020) stipulates that audited financial statements must be filed with the Securities and Exchange Commission, the Nigerian Exchange Group, and the Corporate Affairs Commission within three months of the financial year-end, and must also be approved by the Stock Exchange before being published in newspapers.

Firm attributes represent the component of firm's characteristics that define the status of a firm and may influence financial reporting timeliness. According to Akeronye, et al. (2022), firm attributes are widely recognized as critical factors influencing organizational outcomes, and they can be grouped into several distinct categories. Structural attributes typically include the size of the firm, ownership structure, and organizational design. Strategic attributes relate to the business model, market orientation, and innovation strategies that guide long-term competitiveness. Resource-based attributes encompass financial strength, human capital, technological capacity, and physical assets, all of which form the foundation of operational capability. Operational attributes, on the other hand, cover aspects such as production capacity, supply chain integration, and quality control mechanisms. In addition, cultural and behavioral attributes such as corporate culture, management style, employee engagement, and risk tolerance play a vital role in shaping firm dynamics. Reputational attributes, reflected in brand equity, customer satisfaction, and overall market perception, also contribute significantly to firm performance. Finally, performance-related attributes such as profitability, growth rate, market share, and efficiency serve as key indicators of organizational success.

The size of a firm's human resources, particularly its accounting and finance personnel has been shown to influence the timeliness of financial reporting. Adequate staffing enables firms to efficiently collect, process, and verify financial data, which reduces delays in meeting regulatory deadlines. Conversely, firms with limited accounting staff often struggle to finalize financial statements on time due to workload constraints, resulting in reporting delays (Abernathy et al., 2017). In emerging markets, human resource capacity plays a critical role in financial reporting efficiency. For example, studies in Nigeria and Indonesia highlight that firms with larger, more skilled accounting teams are more likely to report on time, as they can distribute complex reporting tasks effectively and comply with statutory deadlines (Suryanto & Riduwan, 2021). In contrast, firms with insufficient human resources often delay reporting as a result of overstretched staff and inadequate expertise in handling complex reporting requirements.

Audit quality significantly impacts the timeliness of financial reporting, as higher quality audits (with competent auditors, robust processes, larger firms, and effective audit committees) reduce audit report lag, making reliable financial information available sooner for better decision-making and reduced information asymmetry for investors and regulators. Factors like audit fees, auditor size, audit committee independence, and rotation influence how quickly reports are issued, highlighting the crucial link between a thorough audit and timely, high-quality financial disclosures.

Research on audit firm size and financial reporting timeliness shows mixed results, but studies, particularly in emerging markets like Nigeria, find a significant positive impact for larger audit firms, suggesting Big Four audit firms might be more efficient, while others find larger firm size has an insignificant effect, theoretical links suggest large firms should be faster, empirical results vary, with some suggesting smaller firms might face delays due to resource constraints or complexity.

There have been a number of studies on financial reporting timeliness that have been carried out in Nigeria and beyond. But previous studies reviewed showed that audit quality was examined as a direct explanatory variable. This study therefore seeks to investigate the moderating effect of audit quality on firm size (proxied by human resource size) and timeliness of financial reporting and covers all insurance firms listed on the Nigerian Exchange Group.

The main objective of this study was to examine the moderating effect of audit quality on firm size and timeliness of financial reporting of listed insurance firms in Nigeria.

- 1 To examine the effect of firm human resource size on the timeliness of financial reporting of listed Insurance firms in Nigeria.
- 2 To examine the moderating effect of audit quality on the relationship between human resource size, and the timeliness of financial reporting among listed Insurance firms in Nigeria.

## **Review of Related Literature**

### **Conceptual Framework**

#### **Financial Reporting**

The international Accounting Standard Board referred to financial report as the information about a reporting entity's economic resources, claims, and changes in resources and claims. According to IASB (2018), the essential principle of assessing the financial reporting quality is related to the faithfulness of the objectives and quality of disclosed information in a company's financial reports. These qualitative characteristics enhance the facilitation of assessing the usefulness of financial reports, which will also lead to a high level of quality. To achieve this level, financial reports must be faithfully represented, comparable, verifiable, timely, and understandable. Thus, the emphasis is on having transparent financial reports, and not having misleading financial reports to users; not to mention the importance of preciseness and predictability as indicators of a high financial reporting quality (Akai, et al. 2023). The conceptual framework of International Reporting Standards Board (IASB), agreed upon

elements of high quality financial reporting. These qualitative characteristics of financial reporting include: relevance, faithful representation or reliability, understandability, comparability, verifiability, and timeliness. They are divided into fundamental qualitative characteristics and enhancing qualitative characteristics.

### **Timeliness of Financial Reporting**

The primary aim of the financial reports is to present stakeholders' information about the company's financial position and performance within the period in which the reports were prepared. It is a medium of communicating to various stakeholders and providing information that will enable investors and creditors to make informed decisions. Qualitative characteristics are attributes that makes the financial information provided in financial statement useful to users. (Herath & Albarqi, 2017).

Company annual reports might be used to influence investors' perceptions on the company's performance (Liu, et al. 2023). As a result, financial information is of paramount importance to shareholders and other users of the reports because it provides the foundation for financial decisions. Financial reporting is the most effective way of meeting the information needs of users of accounting data. It correctly explains the financial dealings that influenced business activities over the course of the year under review.

According to Karim et al., (2006), as cited in Muideen & Isiaka, 2019) financial reporting timeliness includes audit lag, which is the duration of time in between income statement date and the date the external auditor's report was signed. Financial statement release lag, which is the duration of time in between the income statement date and the date of announcing yearly general meeting and the AGM lag, which is the duration of time in-between the end of the financial year and the yearly general meeting. Nahla, et al. (2019) defined timeliness of financial reporting as the number of days a financial report is made available to the end users after the completion of the accounting cycle.

### **Human Resource Size**

Human resources (HR) refer to the individuals who make up the workforce of an organization, and also to the department or function responsible for managing those individuals, (Cayrat & Boxall, 2023). HR encompasses all activities related to attracting, developing, and retaining employees, as well as managing employee relations, compensation, and benefits. Essentially, HR is focused on maximizing the value of an organization's human capital. According to Alghaswyneh, (2018) the human resource size concept refers to the number of employees an organization employs and how that number impacts the HR department's structure, functions, and strategic role. It encompasses the overall workforce and how effectively it's managed to achieve organizational goals.

Human resource is a viable asset of any company and has great effect on whatever the company does. The productivity of every firm depend greatly on its staff and the early financial reporting could not be an exception because managers are part of this resource and are to a large extent responsible for the timely release of financial report. Human resource size refers to

the total workforce in an organization. The size of company employees and their responsibility in financial reporting plays a key role on reporting timeliness in the listed companies, (Mappadang, et al. 2021). Larger firms are expected to complete audits more quickly than smaller firms because they have more resources in terms of staff and experience in. Very limited literatures exist on the firm's human resource size as it relate to the timeliness of financial reporting in Nigeria.

While firm size is traditionally measured by financial indicators such as total assets, revenue, or market capitalization, using human resource size defined as the number of employees offers a more operational and governance-relevant proxy for firm scale, particularly in studies focusing on internal control, financial reporting, and corporate behavior. Human resource size captures the organizational complexity, administrative load, and coordination demands of a firm, which are critical determinants of reporting quality, audit needs, and managerial oversight. Unlike financial size metrics, employee count directly reflects the scope of human capital deployed, which can influence the timeliness and reliability of financial disclosures (Magau, 2025).

Audit quality significantly impacts the timeliness of financial reporting, as higher quality audits (competent auditors, robust processes, larger firms) reduce financial report lag, making reliable financial information available sooner for better decision-making and reduced information asymmetry for investors and regulators. Factors like audit fees, auditor size, audit committee independence, and rotation influence how quickly reports are issued, highlighting the crucial link between a thorough audit and timely, high-quality financial disclosures.

Audit firm size is increasingly conceptualized not only as a direct determinant of financial reporting timeliness but also as a moderating variable that conditions the strength and direction of the relationship between firm-specific attributes and reporting outcomes, (Bello & Ojo, 2022). From a theoretical standpoint, this moderating role is rooted in agency theory and resource dependency theory, which posit that external monitoring mechanisms. such as high-quality audits, can either amplify or constrain the effects of internal firm characteristics on disclosure behavior. Large audit firms, by virtue of their superior technical expertise, standardized audit methodologies, and stronger reputational incentives, are better positioned to influence managerial reporting behavior and audit scheduling practices, thereby altering how firm attributes translate into actual reporting timeliness.

With respect to firm size, larger or more mature firms typically possess more complex operational structures, which may increase audit effort and potentially delay reporting. However, when such firms engage large audit firms, the negative impact of organizational complexity on reporting timeliness can be mitigated. Large audit firms are more capable of deploying specialized teams, using advanced audit technologies, and coordinating multi-location audits, thereby reducing audit completion time even for complex clients. Consequently, the adverse effect of firm size on reporting timeliness is expected to be weaker among firms audited by large audit firms, indicating a buffering moderating effect.

### **Empirical Review**

**B**olaji, et al. (2025) investigated the effect of corporate attributes on financial reporting timeliness of financial institutions listed on the Nigerian Exchange Group (NXG) from 2014 to 2023. The study found that board independence and audit committee expertise have a significant positive impact on financial reporting timeliness, Conversely, institutional ownership is negatively associated with FRT, Firm size and profitability exhibit positive relationships with FRT. Auditor type does not have a significant effect on reporting timeliness.

**W**ahdini, et al.(2025) investigated whether liquidity, profitability, and company size have a partial or simultaneous effect on the timeliness of financial reports in Indonesia. The results indicate that liquidity, on its own, does not influence the timeliness of financial report submissions. However, profitability and company size do have a significant effect on timeliness. Additionally, when examined simultaneously, liquidity, profitability, and company size together affect the timeliness of submitting financial reports for manufacturing companies listed on the IDX.

**A**khabue, & Abusomwan, (2025). The study examined the determinants of audit quality among listed oil and gas, agriculture, and natural resources firms in Nigeria by assessing the influence of board size, audit firm tenure, and audit firm size. The study shows that board size, audit firm tenure, and audit firm size each have positive and significant effects on audit quality. Larger boards enhance oversight, longer auditor, client relationships strengthen audit understanding, and larger audit firms provide superior expertise and resources.

**N**agari & Nuryatno, (2025). examined the role of Audit Quality in moderating the effect of Profitability, Firm Size, Public Ownership, and Audit Opinion on Timeliness of Financial Reporting, with Leverage as a control variable. The results showed that Profitability has a positive effect on the Timeliness of Financial Reporting. Meanwhile, Firm Size, Public Ownership and Audit Opinion have no effect on Timeliness of Financial Reporting. Leverage as a control variable cannot control the effect of the independent variable on the dependent variable. Audit Quality as a moderating variable cannot moderate the influence of Profitability, Firm Size, Public Ownership and Audit Opinion on Timeliness of Financial Reporting.

**V**ionita, & Maharani, (2025) examined the effect of auditor characteristics, namely audit tenure, size of Public Accounting Firm (PAF), and auditor industry specialization on audit report lag, with the effectiveness of the audit committee as a moderating variable. The results show that audit tenure and the size of the PAF have no significant effect on audit report lag, while auditor industry specialization has a significant negative effect. The effectiveness of audit committee does not to moderate the relationship between audit tenure and the size of the PAF on audit report lag, but it significantly strengthens the effect of auditor industry specialization on audit report lag.

**K**han, Ahmed, & Rehman (2025) examined the relationship between auditor reputation and financial reporting timeliness in selected South Asian economies. The results suggest that auditor reputation enhances audit efficiency, strengthens monitoring, and reduces information asymmetry. The study concludes that improving audit market quality and strengthening auditor

reputation can enhance the timeliness and credibility of financial reporting in emerging market contexts.

Gbadamosi, & Alade, (2024), examined the effect of auditor's characteristics on timeliness of listed family-owned firms in Nigeria. Specifically, the study investigated the extent at which auditor's type; audit opinion; audit fee; auditor's tenure; and joint audit affect timeliness of financial statements of listed family-owned businesses in Nigeria. The robust test performed revealed that Big-4 audit firms, audit opinion and audit tenure have positive effect, while audit fee and joint audit impound negative effect, on timeliness of financial statements of listed family-owned firms in Nigeria. However, the result is statistically significant for audit opinion, audit tenure and audit fee.

Olateru-Olagbegi, et al. (2024), examined Audit firm dynamics and timeliness of financial reporting of financial services firms in Nigeria. The findings revealed that audit fee, joint audit and audit rotation have significant effect on timeliness of financial reports while audit tenure and auditor type have no significant effect on timeliness of financial reporting of the financial service quoted firms. The study concluded that firms' ability to issue timely financial information for stakeholder's use is attributed to their commitment to audit fee and joint audit.

Muotoo & Odum (2024) studied the effect of firm attributes on audit report timeliness among listed consumer goods firms in Nigeria. The specific objective was to determine the extent to which firm profitability, firm size and firm leverage affect the timeliness of audit report among listed consumer goods firms in Nigeria. The study found that: firm profitability has a significant negative effect on audit report timeliness among listed consumer goods firms in Nigeria; firm size has a non-significant negative effect on the timeliness among listed consumer goods firms in Nigeria; firm leverage has a non-significant negative effect on the timeliness among listed consumer goods firms in Nigeria.

Attah, et al. (2024) investigated the effect of firm attributes on financial reporting timeliness of the eleven (11) listed oil and gas firms on the Nigerian Stock Exchange for the period 2011 to 2020. Sample of eight (8) companies were selected using purposive sampling technique after applying a single filter. The result of the study indicates that firm age, firm size and profitability significantly affect financial reporting timeliness while leverage does not influence financial reporting timeliness.

Ihenyen, et al. (2024) using cross-sectional data from selected firms from 2013 to 2022, a ten-year span, this research looked at the effect of corporate qualities on the financial reporting timeliness of quoted industrial products companies in Nigeria. The results of the research, which were based on the yearly financial reports of the firms involved and data analysed using multiple regression analysis with the use of Stata output, showed that although profitability has no outcome on the promptness of financial disclosure, size has a considerable impact.

Adriana, (2024) analyzed factors that affect the timeliness of financial reporting on the IDX, including internal company variables such as company size, profitability, leverage, and complexity of operations. The results show that company size and profitability have a positive

and significant effect on the timeliness of reporting, while leverage and complexity of operations show a diverse influence depending on the characteristics of the industry sector.

Musa, (2023) examined the impact of the firm attributes on timeliness of the financial report of listed foods products companies in Nigeria for the period of 10 years from 2010-2019. The data were collected from the annual reports and accounts of the sampled listed foods products companies. The data were analyzed using descriptive statistics, Spearman correlation and multiple regression (pooled ordinary least square and generalized least square regression). The study found age to have a negative and significant impact on audit report lag. Also it found age to have a positive and significant impact on management report lag.

## Methodology

### Research Design

This study adopted a quantitative research design, specifically the ex-post facto and longitudinal approach, as it seeks to collect data from a sample in order to develop quantitative descriptors of the attributes of the larger population to which the entities belong. Quantitative researches are conducted to gather information that reflects a population's attitudes, behaviors, opinions and beliefs that cannot be observed directly, (Fink, 2017).

### Population and Sample of the Study

The population of the study comprises all 23 Insurance firms listed on the Nigerian Exchange Group as at 31<sup>st</sup> December 2024. The sample size for this study consists of 19 Insurance firms listed on the Nigerian exchange group throughout the period of the study.

**Table 1: Sample of the Study**

S/N	Name of Company	Year of Incorporation	Year of Listing
1.	AIICO Insurance Plc	1963	1990
2.	AXA Mansard Insurance Plc	1989	2009
3.	Consolidated Hallmark Insurance Plc	1991	2005
4.	Cornerstone Insurance Plc	1991	1997
5.	Coronation Insurance Plc	1958	1990
6.	Custodian Investment Plc	1991	2006
7.	Guinea Insurance Plc	1958	1991
8.	International Energy Insurance Plc	1969	2007
9.	LASACO Assurance Plc	1979	1991
10.	Linkage Assurance Plc	1991	2003
11.	Mutual Benefits Assurance Plc	2003	2002
12.	NEM Insurance Plc	1970	1989
13.	Prestige Assurance Plc	1970	1990
14.	Regency Alliance Insurance Plc	1993	2008
15.	Royal Exchange Assurance Plc	1969	1990
16.	Sovereign Trust Insurance Plc	1980	2006
17.	Sunu Assurances Nigeria Plc	1984	1988
18.	Universal Insurance Plc	1961	2009
19.	Veritas Capital Assurance Plc	1973	2009

**Method of Data Analysis**

Given that the dependent variable, timeliness of financial reporting, is measured as a non-negative count variable, the study initially considered Panel Poisson regression as the estimation technique. However, over dispersion diagnostics revealed that the variance of the dependent variable substantially exceeds its conditional mean, thereby violating the equidispersion assumption underlying the Poisson model. Specifically, the Pearson chi-square statistic relative to its degrees of freedom was significantly greater than unity, indicating the presence of over dispersion.

In response to this violation, the study adopted Negative Binomial regression as the primary estimation technique, with the aid of STATA version 14. The Negative Binomial model relaxes the restrictive equidispersion assumption of the Poisson model by introducing an additional dispersion parameter that explicitly captures unobserved heterogeneity across firms and over time. This approach yields consistent coefficient estimates and corrects for downward-biased standard errors that may arise under Poisson regression in the presence of overdispersion.

**Model Specification**

$$E[FRT_{it} | X_{it}] = \exp \beta_0 + \beta_1 HRZ_{it} + \beta_2 AQ_{it} + \beta_3 (HRZ_{it} * AQ_{it}) + \epsilon_{it}$$

.....iii

Where:

FRT<sub>it</sub> = Timeliness of financial reporting (count variable) for firm i at time t

HRZ<sub>it</sub> = Size of human resources

X<sub>it</sub> = Vector of firm attribute

AQ<sub>it</sub> = Audit Quality (moderator)

B3 = interaction effects between audit quality and firm attribute

**Data Presentation and Analysis**

**Table 2: Descriptive Statistics**

Variable	Observation	Minimum	Maximum	Mean	Std. Dev.
FRT	190	54	1745	232.4947	193.8553
HRZ	190	3	374	135.6368	80.19427
AUQ	190	0	1	.5210526	.5008764

Table 2 presents the descriptive statistics for the six variables, Timeliness, Number of Employees, and Audit Quality. The result show that Timeliness has a minimum value of 54 and a maximum value of 1745, it has a mean of 232 and standard deviation of 194. Human Resource Size (HR), proxied by the number of employees, has a mean value of approximately 136 employees, reflecting the average workforce size of listed insurance firms in Nigeria. The minimum value of 3 employees suggests that some firms operate with very lean staffing structures, while the maximum value of 374 employees indicates the presence of relatively large organizations with extensive administrative and operational capacity. The standard deviation of

80 employees demonstrates significant variation in firm size, providing a strong basis for examining whether internal capacity influences the timeliness of financial reporting.

Audit Quality (AUQ), measured as a dummy variable distinguishing between Big Four and non-Big Four auditors, has a mean value of approximately 0.52. This implies that about 52% of the firm-year observations were audited by Big Four audit firms, while the remaining observations involved non-Big Four auditors. The minimum value of 0 and maximum value of 1 confirm the binary nature of the variable, while the standard deviation of approximately 0.50 indicates a fairly balanced distribution, enhancing the reliability of subsequent moderation analysis involving audit quality.

### **Correlation Matrix and Diagnostics Tests**

In order to provide an initial understanding of the underlying relationships among the study variables, a non-parametric Spearman's rank-order correlation analysis was conducted. The result show that number of employees exhibits a negative and significant relationship with timeliness ( $\rho = -.200$ ,  $p < 0.01$ ), implying that larger firms report more slowly. To ascertain whether the continuous variables employed in the study satisfy the normality assumption required for parametric statistical techniques, tests of normality were conducted using both the Kolmogorov–Smirnov test and the Shapiro–Wilk test. The Shapiro–Wilk test results indicate statistically significant deviations from normality for all variables examined. Specifically, timeliness records a Shapiro–Wilk statistic of 0.517 with a significance value of  $p < 0.001$ , providing strong evidence of severe non-normality. For number of employees, the Shapiro–Wilk statistic is 0.971 with a significance level of  $p = 0.001$ , indicating a statistically significant but relatively mild departure from normality. To ascertain the presence of multicollinearity among the explanatory variables, the Variance Inflation Factor (VIF) and tolerance statistics were examined. A VIF of 1.13 for the explanatory variable is substantially below the conservative benchmark of 5 and far below the critical threshold of 10, providing strong evidence that multicollinearity is not present in the model. To determine whether the random-effects or fixed-effects estimator is more appropriate for modeling financial reporting timeliness, a Hausman specification test was conducted. From the Hausman test results, the test statistic is 4.64 with a p-value of 0.4812. This indicates that the difference in coefficients between the fixed-effects and random-effects models is not statistically significant at the conventional 5% level. In other words, the p-value of 0.4812 suggests that we fail to reject the null hypothesis, meaning that the random-effects model provides consistent and efficient estimates, and is therefore the preferred specification.

### **Test of Hypothesis**

#### **Hypothesis One**

**H<sub>01</sub>:** Human resource size has no significant effect on the timeliness of financial reporting of listed Insurance firms in Nigeria.

**Table 3 Negative Binomial Regression**

Timeliness	IRR	Z	P
AUQ	.5502786	-1.38	0.168
HRZ	.996446	-3.77	0.000
AUQ*HRZ	1.003001	2.64	0.008
Wald chi <sup>2</sup>	26.31		
Prob > chi <sup>2</sup>	0.0058		
Log likelihood	-1107.5705		

The effect of human resource size on the timeliness of financial reporting was examined using a random-effects negative binomial regression model. The decision rule for testing this hypothesis was based on the p-value criterion at the 5 per cent level of significance. The regression results indicate that human resource size has a p-value of 0.000, which is less than 0.05.

Given that the p-value associated with human resource size is statistically significant, the null hypothesis is rejected. This result implies that human resource size exerts a statistically significant influence on the timeliness of financial reporting among listed insurance firms in Nigeria during the study period. Specifically, firms with larger human resource capacity tend to release their financial reports more promptly, reflecting the role of adequate staffing and internal accounting capacity in enhancing reporting efficiency. Accordingly, Hypothesis One (H01) is rejected, indicating that human resource size significantly influences the timeliness of financial reporting of listed insurance firms in Nigeria.

### Hypothesis Two

**H<sub>02</sub>:** Audit Quality does not significantly moderate human resource size on the timeliness of financial reporting of listed Insurance firms in Nigeria.

The moderating effect of audit quality on the relationship between human resource size and financial reporting timeliness was examined using a random-effects negative binomial regression model that includes an interaction term between human resource size and audit quality. The hypothesis was tested using the p-value criterion at the 5 per cent level of significance. The regression results show that the interaction term between human resource size and audit quality has a p-value of 0.008, which is less than 0.05.

Given that the p-value associated with the interaction term is statistically significant, the null hypothesis is rejected. This result indicates that audit quality significantly moderates the relationship between human resource size and the timeliness of financial reporting among listed insurance firms in Nigeria. This means that the effect of human resource capacity on reporting timeliness differs significantly depending on the quality of the external auditor engaged by the firm. Accordingly, Hypothesis Two (H02) is rejected, implying that audit quality plays a significant moderating role in the relationship between human resource size and financial reporting timeliness of listed insurance firms in Nigeria.

### Discussion of Findings

Hypothesis One examined whether human resource size significantly influences the timeliness of financial reporting among listed insurance firms in Nigeria. The empirical results

reveal a statistically significant relationship between human resource size and financial reporting timeliness, leading to the rejection of the null hypothesis. This finding indicates that firms with larger human resource capacity tend to release their financial reports more promptly than firms with smaller workforce sizes.

The empirical finding for Hypothesis Nine shows that the interaction between human resource size and audit quality is statistically significant at the 5% level ( $p = 0.008$ ), leading to the rejection of the null hypothesis. This result indicates that audit quality significantly moderates the relationship between human resource size and the timeliness of financial reporting among listed insurance firms in Nigeria. In other words, the impact of firm human resource capacity on reporting timeliness varies depending on the quality of the external auditor engaged.

### **Conclusion**

The study concludes that financial reporting timeliness in the Nigerian insurance sector is driven by firm characteristics, human resource size significantly influence the speed with which financial reports are released. The findings also demonstrate that audit quality is not merely a control mechanism but a conditional governance factor. Audit quality significantly moderates the relationship between profitability and financial reporting timeliness, as well as between human resource size and reporting timeliness

### **Recommendations**

Insurance firms should prioritize investments in human resource capacity, particularly in finance, accounting, and compliance functions. The significant influence of human resource size on financial reporting timeliness indicates that firms with stronger internal technical capacity are better positioned to meet statutory reporting deadlines. Management should ensure adequate staffing levels, continuous professional training, and the deployment of modern financial reporting systems to reduce delays in financial statement preparation.

Listed insurance firms are advised to engage high-quality auditors, particularly Big Four audit firms or audit firms with comparable technical capacity and industry expertise. The study's findings that audit quality significantly moderates the effects of profitability and human resource size on reporting timeliness underscore the importance of competent external auditors in accelerating the audit process and ensuring timely report issuance. Where cost constraints exist, firms should still prioritize audit quality by assessing auditors' industry specialization, staff strength, and technological capability.

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