“The impact of auditor attributes and firm size on financial reporting timeliness of listed firms”

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THE IMPACT OF AUDITOR ATTRIBUTES AND FIRM SIZE ON FINANCIAL REPORTING TIMELINESS OF LISTED FIRMS

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Abstract

This empirical study examines the impact of auditor attributes and firm size on financial reporting timeliness among listed firms in Nigeria. The study employs an ex-post facto type of research, with a quantitative design covering a ten-year period (2013–2022). The sample size comprises sixty-six (66) non-financial firms listed on the Nigerian Exchange Group (NGX). Based on data extracted from the audited annual reports of the sampled sixty-six firms, the robust regression model results reveal that joint audits contributed considerably to shorter financial reporting lags, underscoring the value of collaborative audit efforts in streamlining the audit process. Audit fees maintained a positive significant effect on the reporting lag of listed Nigerian firms. However, audit switch, client firm size, audit opinion, and audit firm size all maintained insignificant effects on the financial reporting timeliness of the Nigerian listed firms investigated. Therefore, the study recommends that listed firms should rather opt for affordable joint audits due to their efficiency in streamlining the audit process. Equally, the study recommends that listed firms should maintain long-term relationships with auditors to leverage increased familiarity, yet remain cautious of likely complacency and breach of auditing ethical guidelines that can arise from prolonged engagements.

Keywords audit tenure, joint audit, audit fees, firm size, Nigerian Exchange Group, audit opinion, financial reporting lag, audit switching

JEL Classification M41, M42, M49

INTRODUCTION

Timely access to accurate financial information is essential for fostering a healthy and transparent business environment. However, Nigeria has long grappled with financial reporting delays among its listed firms, exceeding the stipulated 90-day deadline set by the Nigerian Exchange (NGX). This issue has significant repercussions for the Nigerian economy. Financial reporting delays create a cascade of problems. For instance, reporting delays reduce investor confidence when updated and essential information for decision making cannot accessed easily (Aifuwa et al., 2020). Also, delayed reports erode market transparency, making it challenging to assess the true health of companies and the overall market (Charles et al., 2023). Timely financial reporting is crucial for attracting foreign direct investment and fostering a robust domestic investment climate (Charles et al., 2023). While some progress has been made, there is still much work to be done. Increased regulatory enforcement, stricter penalties for non-compliance, and a stronger focus on corporate governance practices are all necessary steps toward ensuring timely and transparent financial reporting in Nigeria.

The financial reporting landscape in Nigeria is shaped by the interplay of regulatory requirements and economic volatility, significantly af-

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fecting the practices of publicly traded companies. Attributes of auditors such as the length of the audit tenure, the size of the audit firm, and the frequency of audit firm rotation play crucial roles in influencing the timeliness and reliability of financial disclosures (Inneh et al., 2022). The tenure and size of audit firms are pivotal factors. Longer auditor tenure and larger audit firms have been associated with more efficient auditing processes, leading to quicker financial disclosures (Baffa et al., 2023). This relationship highlights the importance of auditor experience and resources in mitigating delays in financial reporting, which is crucial for compliance with regulatory standards and for maintaining market stability (Muhammad, 2020). Prompt and reliable financial reporting is essential for sustaining investor trust and ensuring the stability of the markets, a fact increasingly recognized in Nigeria.

Literature is replete with studies on the connection between auditing and financial reporting. However, despite these extensive studies, the detailed impacts of specific auditor attributes within Nigeria's unique financial landscape remain underexplored. This study addresses this gap by providing empirical insights into the influence of auditor attributes on the financial reporting timeliness of listed firms in Nigeria, contextualized within the current economic and regulatory environment.

1. LITERATURE REVIEW AND HYPOTHESES

A considerable amount of previous studies on the connection between auditor attributes and financial reporting timeliness have been anchored more on the agency theory than the stakeholders' theory. However, this study is rooted in the stakeholder theory, given that most corporate governance regulatory requirements stress the effective governance structure that protects the rights of different stakeholders and recognizes the importance of timely financial reporting. According to the stakeholder theory, financial reports must be published on time to avoid information asymmetry and unscrupulous delays in corporate financial reporting. Financial reporting timeliness is the period between a firm's year-end date and the audit report date (Onatuyeh & Akpokerere, 2023). The quicker it takes corporate firms to issue financial reports, the better the usefulness of the reports to users who rely on them (Abdullah, 1996). Delay in financial disclosure is influenced by a complex interplay of organizational and regulatory factors that significantly impact stakeholder decision-making and confidence. In Nigeria, various studies have identified factors such as audit firm size, audit tenure, and firm-specific characteristics (e.g., size, complexity, and sector) as determinants of reporting timeliness (Akiri & Jeroh, 2022; Nwaolisa et al., 2020).

The organizational culture towards transparency, the efficiency of internal audit processes, and the strategic priorities of firms also play vital roles. Notably, regulatory frameworks set by bodies such as the Nigerian Stock Exchange (now known as the Nigerian Exchange Group) and the Financial Reporting Council of Nigeria provide guidelines that shape these practices, yet the enforcement and adherence to these guidelines vary considerably across firms, thereby affecting reporting timelines (Abdillah et al., 2019; Muhammad, 2020; Terkende & Karim, 2023). In response, academic discourse and regulatory attention have increasingly focused on mechanisms to reduce financial reporting lags. For example, the adoption of advanced IT systems in financial reporting and the integration of more stringent audit committee reviews have been suggested to enhance the timeliness and accuracy of reports (Nwaolisa et al., 2020). These interventions highlight the need for ongoing research and policy adjustments to address the unique challenges faced by Nigerian firms in achieving timely financial disclosures, emphasizing the role of both internal management practices and external regulatory pressures in shaping financial reporting outcomes.

Financial reporting timeliness is influenced by a number of factors. First, audit fees are a critical factor influencing the financial reporting timeliness within corporate firms. Nkem et al. (2023) investigated auditor independence among twenty-three financial firms from 2011 to 2020 and discovered a significant negative effect of high audit fees on reporting timeliness, demonstrating that higher fees may compromise auditor independence and delay reports. Similarly, Siyanbola et al.

(2020) found that while audit fees do not directly correlate with reporting delays, the financial capacity to attract top-tier audit services could implicitly influence audit quality and timeliness. These studies, including Imafidon et al. (2023) and Ibenre et al. (2020), aligned with the broader discourse that higher audit fees are expected to compensate for the complexity and increased effort of auditing larger or more complex firms. However, they can also introduce inefficiencies and extend reporting delays if not managed properly (Ihenyen et al., 2024). Other studies, like those by Akiri and Jeroh (2022), found that higher fees could facilitate audits due to better resources, highlighting a contentious debate in the literature.

The size of an audit firm can be a significant driver of audit quality and timeliness. Research consistently shows that financial reporting gaps tend to be shorter with larger audit firms, especially those with robust global networks. Okwuego and Orjinta (2023) demonstrated that bigger audit firms typically possess more resources and expertise, enabling them to conduct more efficient audit processes and reduce reporting delays. Similarly, Muhammad (2020) found that audit reports from Nigerian service companies are timelier when conducted by auditors affiliated with larger firms due to the greater resources and experience available within the audit firms. Recent studies further reinforce these findings. Both Bako (2024) and Okoye et al. (2023) reported that larger audit firms can better manage the complexities of large-scale audits due to their extensive resources and sophisticated audit methodologies, leading to more timely financial reporting. On the flipside, Baffa et al. (2023) noted that larger firms may undertake more exhaustive audits that require additional time.

Audit switch has been extensively studied in accounting literature for its impact on the timing of financial reporting, yielding mixed results. Okwuego and Orjinta (2023) examined this relationship and found that audit switches often lead to increased reporting lags due to the time required for new auditors to familiarize themselves with the business practices and financial intricacies of the firm. This transitional period can delay audit processes as new auditors may need additional time to ensure audit quality and compliance. On the contrary, Nkem et al. (2023) reported that audit switches could potentially reduce reporting lag if the new audit firm brings more efficient methodologies or if the switch was driven by the need for more rigorous audit practices. Muhammad (2020) obtained similar results, but Enofe and Mgbame (2013) did not find any significant relationship between audit timeliness and auditor changes when they investigated firm rotation and audit report lag within the Nigerian context. Further, Inneh et al. (2022) argued that while new auditors may introduce initial delays, their long-term impact can be positive if they bring innovative audit practices that enhance overall efficiency.

Also, joint audits have been scrutinized for their impact on financial reporting timeliness. Prior research suggests that joint audits can serve as an effective mechanism for reducing reporting lags. Appah et al. (2022) argued that joint audits leverage the combined expertise and resources of collaborating firms, leading to more efficient audit processes and earlier detection of discrepancies. This arrangement enhances audit quality through rigorous cross-checking and the diverse perspectives brought by different auditors. Joint audit significantly decreases audit report lag by facilitating a more efficient allocation of audit tasks and resources (Appah et al., 2022; Muhammad, 2020; Nwaolisa et al., 2020). The combined expertise of multiple audit firms allows for a more thorough and expedited audit process, which is crucial for timely financial reporting. Moreover, Okwuego and Orjinta (2023) discovered that joint audits foster a more disciplined audit environment amongst Nigerian firms, resulting in faster consensus and reporting. Their research indicated that the collaborative nature of joint audits helps mitigate the challenges associated with auditing large and intricate financial statements, thereby ensuring timely and reliable financial reporting.

Audit opinion reveals an auditor's assessment as to whether the financial statements have been presented fairly in line with the relevant financial reporting standards. Recent research on financial reporting timing/audit opinion dynamics demonstrates that the type of audit opinion issued can significantly impact financial reporting timeliness. Nkem et al. (2023) documented that modified audit opinions are associated with

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longer reporting lags due to the additional investigations and corrections required to address issues raised by auditors. Conversely, unqualified opinions tend to correlate with shorter reporting lags, as they indicate fewer complications in the financial statements, which streamlines the finalization and publication process. Additionally, Siyanbola et al. (2020) suggested that the nature of the audit opinion reflects the auditors' assessment of the firm's financial health and compliance, influencing stakeholder perceptions and subsequent reporting deadlines imposed by regulatory bodies or financial markets.

Audit tenure, which is defined as the length of time an audit firm continuously provides audit services to a particular audit client, has been the subject of extensive research regarding its influence on firms' financial reporting timeliness. Extant literature has shown that extensive audit tenure is frequently linked to better auditor knowledge of the audit client, reducing reporting gaps due to higher efficiency (Ayemere & Elijah, 2015; Baffa et al., 2023). Also, Muhammad (2020) documented that longer audit tenures may contribute to quicker reporting due to auditors' increased understanding of the business and faster identification of concerns. Conversely, Okwuego and Orjinta (2023) argued that excessively extended tenures could lead to complacency, thus increasing financial reporting lag because auditors may become less rigorous with time.

Firm size signifies the total assets of a firm and how much wealth is owned by the firm. It is a significant determinant of financial reporting timeliness, with numerous studies examining its effect across different economies across the globe. Larger firms are typically expected to experience shorter reporting lags due to better-resourced accounting departments and more robust governance structures (Olawale, 2023; Onatuyeh & Akpokerere, 2023). A study by Terkende and Tarim (2023), however, presents a more complex picture. These authors found that larger consumer goods firms in Nigeria actually faced longer reporting lags, attributing this to the complexity and greater volume of transactions that need to be audited, which can delay the reporting process. Similarly, studies by Nkem et al. (2023) and Sunday et al. (2022) reported no significant direct effect of firm size on reporting timeliness, signifying that the relationship might be influenced by other factors like the efficiency of the audit process or the nature of the firm's internal controls. These reviews show that while larger firms possess the resources to facilitate rapid reporting, the inherent complexities of larger business operations can offset these advantages, leading to varied impacts on financial reporting lag in the Nigerian economy (Ibadin et al., 2012; Situanti, 2018; Machmuddah et al., 2020).

The outcome of the foregoing review of empirical research indicates that even though numerous studies have investigated the connection between auditing and financial reporting, a comprehensive study of specific auditor attributes within Nigeria's unique financial landscape remains underexplored. This justifies the purpose of conducting this study as it provides empirical insights into the impact of auditor attributes and firm size on the financial reporting timeliness of firms with reference to Nigeria's case. The hypotheses of the study, in the null form, are as follows:

H_{01}: *Audit fees have no significant effect on financial reporting timeliness.*

H_{02}: *Audit firm size has no significant effect on financial reporting timeliness.*

H_{03}: *Audit switching has no significant effect on financial reporting timeliness.*

H_{04}: *Joint audit has no significant effect on financial reporting timeliness.*

H_{05}: *Audit opinion has no significant effect on financial reporting timeliness.*

H_{06}: *Audit tenure has no significant effect on financial reporting timeliness.*

H_{07}: *Firm size has no significant effect on financial reporting timeliness.*

This study aims to illuminate how attributes such as audit firm size, tenure, and the frequency of audit firm rotation impact the speed and timeliness of financial reporting, offering a fresh perspective on the literature on audit effectiveness.

2. METHODS

2.1. Research design and data source

This study employs an ex-post facto research design to investigate the impact of auditor attributes and firm size on the financial reporting timeliness of listed firms in Nigeria. The choice of this research design is based on the fact that it allows the analysis of existing data without manipulating them directly. Since historical data on auditor characteristics, firm size, and reporting lag are readily available, an ex-post facto design provides an efficient and cost-effective way of exploring the relationship between auditor attributes and financial reporting timeliness. Data were sourced from the published financial statements of 66 non-financial firms listed on the Nigerian Exchange Group (NGX) floor from 2013 to 2022 (amounting to 660 firm-year observations). The study investigated the effects of various independent variables (audit firm size, audit fees, audit switch, audit opinion, joint audit, audit tenure, and firm size) on financial reporting timeliness (the dependent variable).

2.2. Method of analysis

To understand the basic features of the study sample data, provide a basis for further research steps, and ensure broader applications of the research findings, both descriptive and inferential statistical methods were employed. A robust regression model was adopted for data analysis and hypothesis testing to mitigate the problem of outliers and heteroscedasticity in the study dataset. By implementing this estimation technique, the analysis performed is strengthened, and the results obtained provide an appropriate reflection of the relationships between the auditor attributes/firm size and financial reporting timeliness among the firms investigated.

2.3. Model specifications

The model specified for the study and the operationalization of study variables (Table 1) are presented as follows:

$$FRL = f\begin{pmatrix} AUDFEE,\ AFSIZE,\ AUDSW, \\ ADOP,\ JOTA,\ AUDT,\ FSIZE \end{pmatrix}, \quad (1)$$

$$\begin{aligned} EIDC_{it} &= a_{0it} + a_1 AUDFEE_{it} + a_2 AFSIZE_{it} \\ &+ a_3 AUDSW_{it} + a_4 ADOP_{it} + a_5 JOTA_{it} \\ &+ a_6 AUDT_{it} + a_5 FSIZE_{it} + U_t, \end{aligned} \quad (2)$$

Table 1. Measurement of variables

Variables	Symbols	Measurement
Financial Reporting Lag	FRL	Measured by the number of days between the fiscal year-end and the time the audit report is signed and published.
Firm Size	FSIZE	Measured using the log of Total Assets of firm *i* in year ***t***.
Audit Tenure	AUDT	Measured by the successive number of years that the auditor has audited the client.
Joint Audit	JODT	Measured using "1" if the annual report lists more than one audit firm and "0" if only one audit firm is listed.
Audit Fees	AUDFEE	Measured by the amount paid for audit service.
Audit Switch	AUDSW	Assign "1" if the audit firm was switched between the last ten years within the study period, otherwise, "0".
Auditor Opinion	AUDOP	Measured using a dummy variable by assigning "1" if the company received a clean, unqualified audit opinion and 0 otherwise.
Audit Firm Size	AFSIZE	Measured by assigning "1" if the audit is a big four, otherwise "0"

3. RESULTS

3.1. Summary statistics

Table 2 provides a statistical overview of auditor attributes, firm size, and financial reporting timeliness for sampled listed firms.

The average financial reporting timeliness of the sampled Nigerian firms is 113.15 days long, exceeding the stipulated 90-day deadline set by the Nigerian Exchange (NGX). The high standard deviation of 78.52 days represents considerable variability in the reporting days of the firm investigated. The data cover a wide range of times, from 20 to 538 days. They are strongly skewed to the right (skewness = 2.88) and have a significant peak (kurtosis = 11.70), suggesting that some firms have very long reporting delays. The audit fees (AUDFEE) variable shows a mean value of 0.27, with a high standard deviation of 0.51, reflecting a

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Table 2. Descriptive statistics

Variable	Mean	Std.	Min	Max	Skewness	Kurtosis
FRL	113.1538	78.51831	20	538	2.88373	11.69838
AUDFEE	0.27184	0.51324	0.0089	6.6286	6.70041	68.09157
AFSIZE	0.64615	0.47862	0	1	–0.61132	1.37371
AUDSW	0.11731	0.32209	0	1	2.37855	6.65748
JOTA	0.01923	0.13747	0	1	7.0014	50.01961
AUDOP	0.03846	0.19249	0	1	4.8	24.04
AUDT	0.75385	0.43118	0	1	–1.17857	2.38903
FSIZE	7.04502	0.77741	5.0927	9.2409	0.24367	2.66271
OBSERVATIONs	660	660	660	660	660	660

wide disparity in the fees charged. This is further emphasized by the extreme values in its distribution (skewness = 6.70, kurtosis = 68.09). Audit firm size shows a mean value of 0.65, signifying that the majority of the firms investigated are audited by larger firms, with the distribution slightly skewed negatively (-0.61) and showing moderate peakiness (kurtosis = 1.37).

Furthermore, both audit switch (AUDSW) and joint audit (JOTA) appear to be infrequent practices among the sampled firms, as indicated by their low means (0.12 and 0.02, respectively) and highly positive skewness, highlighting the rarity of these events. The audit opinion (AUDOP) variable reveals that modified audit opinions are rare (mean = 0.04), with a distribution that is both highly skewed (4.8) and peaked (kurtosis = 24.04), suggesting that most firms receive favorable audit opinions. The data on audit tenure (AUDT) show a preference for longer engagements (mean = 0.75), with the negative skewness (-1.18) indicating that the majority of the audit contracts tilted towards prolonged durations, raising questions regarding the potential impacts on audit quality.

Lastly, firm size (FSIZE) displays a mean value of 7.05 and a standard deviation of 0.78, signifying considerable variability in firm sizes. However, the distribution is relatively even, as shown by skewness (0.24) and kurtosis (2.66). The foregoing analysis highlights the significant differences in auditing and financial reporting practices among the sampled Nigerian listed firms.

3.2. Correlation analysis

To obtain a clear picture of the directions displayed by the relationship between the sets of variables built into the regression model, the dataset was subjected to correlation analysis using Pearson Product-Moment Correlation, as presented in Table 3.

As shown in Table 3, the results of the correlation analysis reveal mixed coefficients as some of the correlations showed positive coefficients and others showed negative coefficients. For instance, the correlation coefficients between audit fees (AUDFEE) and financial reporting timeliness (0.0676), audit firm size (AFSIZE) and financial reporting timeliness (0.0210), audit switch (AUDSW) and financial reporting timeliness (0.0053), audit opinion (AUDOP) and financial reporting timeliness (0.1604), audit opinion (AUDOP) and financial reporting timeliness (0.1604), audit firm size (AFSIZE) and audit fees (AUDFEE) (0.0058), audit opinion (AUDOP) and audit fees (AUDFEE)

Table 3. Correlation matrix

Variable	FRT	AUDFEE	AFSIZE	AUDSW	JOTA	AUDOP	AUDT	FSIZE
FRL	1.0000							
AUDFEE	0.0676	1.0000						
AFSIZE	0.0210	0.0058	1.0000					
audsw	0.0053	–0.0242	–0.0302	1.0000				
jota	–0.0676	–0.0585	0.1036	–0.0075	1.0000			
AUDOP	0.1604	0.2845	0.0434	0.0203	–0.0280	1.0000		
AUDT	–0.0175	0.0092	0.0906	–0.6241	0.0150	–0.0482	1.0000	
FSIZE	–0.0340	–0.0858	–0.1022	0.0298	–0.0591	–0.0899	–0.0554	1.0000

(0.2845), joint audit (JOTA) and audit firm size (AFSIZE) (0.1036), audit opinion (AUDOP) and audit firm size (AFSIZE) (0.0434), audit tenure (AUDT) and audit fees (AUDFEE) (0.0092), audit tenure (AUDT) and audit firm size (AFSIZE) (0.0906), audit opinion (AUDOP) and audit switch (AUDSW) (0.0203), firm size (FSIZE) and audit switch (AUDSW) (0.0298), as well as audit tenure (AUDT) and joint audit (JOTA) (0.0150), are all positive, while other relationships are all negative. The coefficients of all the independent variables are significantly less than the threshold of 0.80, thus demonstrating the absence of a multicollinearity problem (Kennedy, 2008). Multicollinearity can only be a problem if the pair-wise correlation coefficient among the independent variables is above 0.80. The presence of the problem of multicollinearity among the regressors may cause phony regression results.

3.3. Variance inflation factor

The results of the correlation analysis are further reinforced by the test result of the variance inflation factor (VIF) presented in Table 4. The test result reveals minimal multicollinearity among the predictors, indicating that the independent variables do not exhibit strong linear collinearity with each other. The highest VIF was observed for Audit Tenure (AUDT) and Audit Switch (AUDSW) with values of 1.66 and 1.64, respectively, suggesting only a modest increase in the variance of the estimated regression coefficients.

Table 4. Variance inflation factor test

Variable	VIF	1/VIF
AUDT	1.66	0.60274
AUDSW	1.64	0.60940
AUDOP	1.10	0.90971
AUDFEE	1.10	0.91154
AFSIZE	1.03	0.96998
FSIZE	1.03	0.972742
JOTA	1.02	0.98244
Mean VIF	1.22	

All other variables, including Audit Opinion (AUDOP), Audit Fees (AUDFEE), Audit Firm Size (AFSIZE), Firm Size (FSIZE), and Joint Audit (JOTA), showed VIF values close to 1 (ranging from 1.02 to 1.10), which are well below the commonly used threshold of 10 (Gujurati, 2004), indicating they are unlikely to be contributing significantly to multicollinearity in the model. The overall mean VIF of 1.22 further supported the conclusion that multicollinearity is not a concern in the regression analysis, affirming the statistical reliability of the estimated parameters.

3.4. Breusch-Pagan statistic

As shown in Table 5, the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity indicates significant heteroskedasticity in the data. The test yields a Chi-squared statistic of 51.73 with 1 degree of freedom, and an associated probability value (p-value) of less than 0.0001, strongly rejecting the null hypothesis of homoscedasticity (constant variance of the residuals).

Table 5. Breusch-Pagan test

TEST	Statistic	p-value
Breusch Pagan Cooke/ Weisberg Test for Heteroskedasticity	Chi2(1) = 51.73	Prob>chi2= 0.0000

This Breusch-Pagan test result means that the variance of the residuals varies with the level of the independent variables. This indicates that different levels of the predictors are associated with different levels of variability in the dependent variable, which could affect the reliability and validity of the regression estimates.

3.5. Multivariate analysis

Since the outcome of the Breusch-Pagan/Cook-Weisberg test revealed the presence of heteroscedasticity in the sample dataset, which violates the assumption of homoscedasticity of the ordinary least square estimator, the robust regression estimation technique was employed. The robust regression method can automatically correct for outliers and heteroscedasticity if they are present in a dataset. The regression results are presented in Table 6.

As presented in Table 6, the results of the regression model showed a statistically significant and positive relationship between audit fees (AUDFEE) and financial reporting timeliness (FRT) at a 1% level ($\beta = 4.57311$, p-value $= 0.002 < 0.05$), indicating that an increase in audit fees will lead to a 4.57 increase in time taken to publish financial reports

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Table 6. Robust regression results

Variable	Dependent variable: financial reporting lag (frl)				
	Symbols	Coefficient	Std. Err.	t-stat.	p-value
Audit fee	AUDFEE	4.57311	1.49217	3.06	0.002*
AUDIT FIRM SIZE	AFSIZE	2.57588	1.55114	1.66	0.097***
AUDIT SWITCHING	AUDSWI	–4.20445	2.90796	–1.45	0.149
JOINT AUDIT	JOTA	–11.3742	5.36629	–2.12	0.035**
AUDIT OPINION	AUDOP	–0.00081	3.98254	–0.02	0.346
AUDIT TENURE	AUDT	–1.94269	2.18423	–0.89	0.374
FIRM SIZE	FSIZE	–0.76073	0.95363	–0.80	0.425
Prob > F					0.0040
F (1, 660)					6.49

Note: *, **, and *** indicate 1%, 5%, and 10% significance levels, respectively.

by the sampled listed firms. Therefore, the null hypothesis (H1) which states that audit fees have no significant effect on financial reporting timeliness is rejected. On the financial reporting timing effect of audit firm size (AFSIZE), the results of the regression model revealed a statistically non-significant and positive relationship between audit firm size (AFSIZE) and financial reporting timeliness (FRT) at the 5% level ($\beta = 2.57588$, p-value = 0.097 > 0.05), although statistically significant at the 10% level. The non-significant positive coefficient result, driven by the high p-value, means that larger audit firms are associated with increased financial reporting lag, thus supporting the null hypothesis (H2) which states that audit firm size has no significant effect on financial reporting timeliness. Furthermore, the results of the regression model displayed a statistically non-significant and negative connection between Audit Switch (AUDSW) and financial reporting timeliness (FRT) at the 5% level ($\beta = -4.20445$, p-value = 0.149 > 0.05). The insignificant and negative coefficient suggests that switching audit firms may have an immaterial effect on reducing financial reporting lag amongst the firms investigated. Hence, the null hypothesis (H3) which states that audit switching has no significant effect on financial reporting timeliness is accepted.

The regression results on the financial reporting timing effect of joint audit (JOTA) showed that joint audit exerts a significant and negative effect on the financial reporting timeliness of the listed firms at a 5% level ($\beta = -11.3742$, p-value = 0.035 < 0.05). This significant finding suggests that the involvement of more than one audit firm in the auditing process can substantially reduce the time taken by firms to publish their financial reports. Hence, the null hypothesis (H4) stating that joint audit has no significant effect on financial reporting timeliness is rejected, and its alternate is accepted. Also, the regression results displayed a negative but statistically non-significant association between audit opinion (AUDOP) and financial reporting timeliness (FRT) at a 5% level ($\beta = -0.00081$, p-value = 0.346 > 0.05), suggesting that the nature of the audit opinion (whether modified or unmodified) has no significant effect on when financial reports are published. Accordingly, null hypothesis (H5) is accepted and its alternate rejected. Regarding audit tenure, the regression results revealed a statistically insignificant and negative relationship between audit tenure (AUDT) and financial reporting timeliness (FRT) at a 5% level ($\beta = -1.94269$, p-value = 0.374 > 0.05), demonstrating that longer relationships with audit firms do not significantly reduce financial reporting lag, thus supporting the null hypothesis (H6) that audit tenure has no significant effect on financial reporting timeliness. The regression results on the link between firm size (FSIZE) and financial reporting timeliness (FRT) were statistically insignificant and negative at a 5% level, indicating that firm size does not significantly reduce financial reporting lag. Therefore, the null hypothesis (H6) which states that firm size has no significant effect on financial reporting timeliness is supported.

The overall importance of the model is confirmed by the Prob > F value of 0.0040 and the F-statistic of 6.49, indicative of the statistical significance of the model in explaining the variations in the financial reporting timing among the Nigerian listed firms. The model reaffirms the relevance of these audit attributes in understanding the dynamics of firms' financial reporting timeliness but also indicates the varying influence of each attribute on corporate reporting timeliness.

4. DISCUSSION

The results of the empirical analysis indicate that audit fee has a significant and positive effect on the financial reporting timeliness (proxied by financial reporting lag) of the Nigerian non-financial listed firms studied. The results imply that firms paying higher audit fees may experience extra effort from the auditors or complex auditing processes, potentially leading to delays in finalizing and reporting financial statements. The finding that higher audit fees correlate with an extended financial reporting lag suggests that while firms may engage top-tier audit firms, expecting thorough and effective audits, these engagements can inadvertently lead to delays in financial reporting. The results of this study are in line with the findings of Nkem et al. (2023), who found that the depth of audit procedures, often associated with higher fees, might prolong the auditing process, thereby increasing financial reporting lag. The results of the study equally support those of Siyanbola et al. (2020), who found audit fees to indirectly influence audit quality (positively) and timeliness (negatively) via the financial capacity to attract top-tier audit services.

Regarding the relationship between audit firm size and financial reporting timeliness, the study results show that audit firm size exerts a positive but non-statistical significant effect on the financial reporting lag of the listed firms. These results suggest that larger audit firms are associated with an increased financial reporting lag. The results are consistent with Baffa et al. (2023), who documented that larger audit firms may undertake extensive audits, which tend to extend audit duration and financial reporting lag but inconsistent with those of Okwuego and Orjinta (2023) and Muhammad (2020). Okwuego and Orjinta (2023) argued that bigger audit firms conduct more efficient audit processes and reduce reporting delays due to more resources and expertise.

Regarding the connection between audit switch and financial reporting timeliness, the study results display a statistically non-significant and negative association between audit switch and financial reporting timeliness of the sampled firms. This negative coefficient suggests that switching audit firms could potentially reduce the financial reporting lag, although this result is not statistically significant. The implication is that new audit firms can expedite audit processes, possibly due to a lack of entrenched routines or a motivation to establish efficiency with new clients. This aligns with the findings of Onwuchekwa (2013) and Enofe and Mgbame (2013), who found no significant relationship between audit timeliness and auditor changes in Nigeria. The study's results on the relation of financial reporting timeliness with joint audits reveal a statistically significant and negative association, affirming that financial reporting lag decreases proportionally when two or more audit firms are involved in the auditing process. The substantial reduction in financial reporting lag of the sampled firms due to joint audits underscores the benefits of collaborative auditing. The involvement of more than one firm facilitates audits, perhaps through shared expertise and resources, thereby supporting the findings of Appah et al. (2022), Muhammad (2020), and Nwaolisa et al. (2020) that joint audits lead to increased efficiency.

Further, the result of the financial reporting timing effect of audit opinion is negative and statistically insignificant, signifying that the content of the audit opinion, whether adverse or unqualified, does not materially affect the time taken to report financial results. The insignificant impact of audit opinion types on financial reporting timeliness challenges the notion that the nature of the audit opinion directly influences reporting times, contradicting studies like those by Nkem et al. (2023), which linked qualified opinions to more extended audits due to the need for additional checks. Also, audit tenure displays an insignificant negative coefficient. This result suggests that longer relationships with audit firms do not significantly decrease the time financial reports are produced by firms, contrary to expectations that familiarity might streamline the audit process. The lack of a significant relationship between audit tenure and reduced financial reporting lag questions the as-

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sumption that longer auditor-client relationships inherently lead to faster audits. This might reflect a potential complacency over time; hence, caution should be exercised against the drawbacks of extended tenure. Finally, the study's results on the relationship between firm size and financial reporting timeliness are statistically insignificant and negative. This means that larger firms do not necessarily experience shorter or longer reporting delays than smaller firms. The result supports Nkem et al. (2023) and Sunday et al. (2022). This non-significant finding is interesting because it signifies that the expected advantages of larger firms in expediting audits due to more substantial resources might be offset by their more complex operations or extra audit efforts.

CONCLUSION

This study examined the impact of auditor attributes and firm size on financial reporting timeliness among non-financial listed firms in Nigeria. While auditor attributes were proxied using audit fees, audit firm size, audit switch, joint audit, audit opinion, and audit tenure, financial reporting timeliness was measured using the financial reporting lag. Based on 660 firm-year observations, the results of the robust regression model revealed that joint audits contributed considerably to shorter reporting lags, underscoring the value of collaborative audit efforts in streamlining the audit process. The study found that longer audit tenure and engagements with larger audit firms are associated with reduced financial reporting lag, highlighting the benefits of experience and resource availability in enhancing audit efficiency. Just like audit tenure, audit switching, audit opinion, audit firm size, and client firm size, all maintained insignificant effects on the financial reporting timeliness of the Nigerian listed firms. The study strongly recommends that listed firms should encourage affordable joint audits due to their efficiency in streamlining the audit process. Although not significant, the study also recommends that listed firms should maintain long-term relationships with auditors to leverage increased familiarity, yet remain cautious of potential complacency and breach of auditing ethical guidelines that can arise from prolonged engagements. The study recommends that while audit firm switching can introduce efficiencies, it should be executed with careful planning to minimize potential disruptions. Finally, the results of the study revealed that the average time it takes the sampled firms to produce public financial reports is 113 days, which exceeds the stipulated 90-day deadline set by regulators in Nigeria. Therefore, it is recommended that Nigeria's financial regulatory requirements should be made more stringent to enforce compliance by corporate firms.

AUTHOR CONTRIBUTIONS

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