International Journal of Advanced Finance and Accounting
ISSN 2765-8457 | Published by AIR JOURNALS | *https://airjournal.org/ijafa*
12011 WestBrae Pkwy, Houston, TX 77031, United States
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RESEARCH ARTICLE

The Impact of Earnings Volatility on Audit Report Lag in Listed Nigerian Firms

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Abstract

The purpose of this study is to investigate whether earnings volatility influences audit report lag in listed firms in Nigeria. For the period 2012-2021, a sample of ten Nigerian firms listed on the Nigerian Exchange Group Plc was analyzed. The annual panel data on publicly traded companies was obtained from the annual report release and analyzed using the pooled mean group estimate approach. The findings show a positive relationship between earnings volatility and audit report lag, which is consistent with auditors exerting greater effort in response to more volatile earnings. Increased leverage and larger firm size are also linked to fewer audit efforts, according to the findings. Given the positive and significant influence of earnings volatility on audit report lag, the study suggests that management organizations in Nigeria provide an enabling atmosphere for audits. It is vital to have adequate financial resources available for auditing to enable the proper conduct of audits, which would eventually expose misstatements in reports, hence improving the quality of financial reporting in Nigerian firms.

Keywords	*Earnings Volatility; Audit Report Lag; Listed Nigerian Firms*
Citation	Egiyi, M. A. & Okafor, V. I. (2023). The Impact of Earnings Volatility on Audit Report Lag in Listed Nigerian Firms. *International Journal of Advanced Finance and Accounting, 4(4), 16-24,* https://doi.org/10.5281/zenodo.10028036

Introduction

Financial statements are trustworthy if they are of sufficient quality and aid in making knowledgeable decisions. An external auditor assists organizations in reducing information asymmetry and increasing the credibility of financial accounts. An independent external auditor's audit report expresses an assessment of the accuracy and completeness of financial data. (Rojas, 2017). Due to the increased exposure of Nigerian corporate organizations to international capital markets and the implementation of International Financial Reporting Standards (IFRS), the demand for high-quality and timely financial information has become critical in Nigeria. As a result, businesses must meet the information needs of international investors and supply them with more timely information in their financial reports. Investors' trust in the efficiency of the capital markets has been harmed by previous worldwide accounting scandals. Because of prior accounting scandals (Mbobo & Umoren, 2016) and following International Financial Reporting Standard (IFRS) adoption throughout the world, there is a higher need for timely financial reporting (Abdullahi & Abubakar, 2020). The number of days from the end of the fiscal year to the day the external auditor signs the audit report is characterized as a timely report (Al-Muzaiqer, Ahmad, & Hamid, 2018). Timely reporting mitigates the negative impacts of insider trading and aids in the development of an ethical environment in the capital markets (Oraka, Okoye, & Ezejiofor, 2019). One of the hallmarks of a successful financial reporting system is the timely distribution of company reports. This is because accounting information becomes less important for decision-making as time passes. (Efobi and Okougbo, 2014).

By establishing regulations and timelines for corporations to follow in presenting audited financial statements, capital markets throughout the world have taken steps to modify investors' negative perceptions. In Nigeria, the Nigerian Exchange Group Plc (NGX Group) rules require every trading member to submit a year-end audited report to the exchange within ninety (90) days of the fiscal year's end (Eze & Nkak, 2020). Despite the NGX GROUP's mandate, some listed companies failed to timely publish their audited financial accounts. Listed companies continue to miss the deadline for submitting their audited financial statements at the end of the fiscal year (Eze & Nkak, 2020). In making financial decisions, financial analysts and investors evaluate the organization's earnings volatility unfavourably (Allayannis and Weston, 2003). Earnings volatility is one of the most important drivers of risk and stock market price since it relates to how steady or unstable a corporation's earnings are. A corporation with a high level of earnings volatility is a risky investment. According to Dichev and Tang (2009), the firm's earnings volatility and predictability are negatively related. This study adds to the body of knowledge by looking at the relationship between earnings volatility and audit report lag in publicly traded companies.

Literature Review

Conceptual Review

Audit Report Lag

The term "audit report lag" simply refers to the time it takes for audit-certified yearly financial returns to be released. The time it takes for an external audit of a company's annual returns to be completed and published at the end of a financial year (Edoumiekumo, Ogoun, and Nkak, 2020) The number of days from the end of the fiscal year to the day the external auditor signs the audit report is characterized as a timely report (Pradipta & Zalukhu, 2020). Audit report lag is seen to be a good predictor of audit timeliness and efficiency. The various shareholders are protected by audited financial statements against the risk of losing their investments in the firm since management may be pursuing their interests rather than the shareholders'. In this way, auditing acts as a tool for assessing the performance of managers by ensuring that the financial statements they create are reliable and offer a true picture of the reporting organizations' economic activity. Accurately audited financial reports promote market efficiency and, in the end, confirm that accounting data accurately reflect a company's actual economic performance. The lag in audit reports is one of the most important factors of financial reporting timeliness (Abernathy et al., 2017). We predict a relationship between earnings volatility and audit report lag because auditors see earnings volatility as impacting risk and adapt efforts accordingly. Auditors may view greater or lower levels of earnings volatility as raising risk (Bryan and Mason, 2020).

However, a comprehensive audit can occasionally result in unnecessarily long delays in financial statement publishing. Several issues arise as a result of the uncertainty, including late financial statement disclosure and

information asymmetry, both of which can influence investment decisions. The need for timely financial reporting is generally understood by regulators and public-sector organizations across the world. In Nigeria, however, every firm listed on the Nigerian Stock Exchange must submit its year-end audited report to the exchange within ninety (90) days of the fiscal year's end, and its quarterly financial statements within forty-five (45) days of the quarter's end, as well as any other period report within the Exchange's specified time frame (NSE, Rule book, 2018). Despite this legislation, listed firms in Nigeria still have delays in releasing financial reports.

Earnings Volatility

Volatility is a measure of how frequently a variable's value changes. Earnings volatility is a statistical concept that assesses the risk associated with a specific company and aids in predicting its market price. Earnings volatility refers to the frequency with which an organization's earnings fluctuate up and down. Management finds it difficult to plan with such fluctuating earnings, especially when funds must be borrowed for long-term investments. As a result, management strives to maximize profits while still maintaining a consistent appearance. Both macroeconomic and microeconomic issues impacting the company might induce earnings volatility. Micro factors are those that the company has control over, whereas macro variables are those that the firm cannot control (Wolfgang, 2003). Inflation, social-political instability, business policies, and capital availability are examples of macroeconomic factors. Earnings are essentially the excess or profits retained by a company as a result of its routine activities.

According to prior studies, increased earnings volatility may be perceived by auditors as an increase in risk since earnings are more variable and hence less predictable. Earnings volatility, also known as income volatility, depicts the amount of business risk and the likelihood of a company's bankruptcy. As earnings volatility rises, so does the chance of a company's profits being lost. According to Lubis (2019), earnings volatility is calculated by comparing operating profit and total assets and then equating earning volatility to the ratio of operating profit to total assets.

Theoretical Literature

The study's theoretical basis was based on the agency and stakeholder theories. The agent-principal connection is explained by the agency theory. The principal delegated authority over the firm to the agent. Jensen and Meckling (1976) saw agency cost as the principal's incapacity to directly oversee or control the agent's excesses, which might have a detrimental consequence. When attempting to hire an external auditor to audit the financial accounts, the auditor is tasked with verifying that the agent (manager) acts on behalf of the principal (shareholders). As a result, shareholders, mindful of the risk of earnings volatility, emphasize the need for high-quality, timely financial information.

The stakeholder theory emphasizes the impact of business behaviour on all identified firm's stakeholders. According to the notion, managers should consider stakeholders' interests in their reporting process (Iyoha, 2012). The growing demand for stakeholders to have access to financial information has led to the pursuit of timely, trustworthy, and credible financial reporting.

Empirical Literature

Asthana (2014) used a two-stage model to analyze the association between abnormal audit delays, earnings quality, and business value in the United States. Their findings show that anomalous audit delays are negatively related to profit quality. The results also show that abnormal audit delays cause distrust among investors regarding earnings quality, and they value revealed profits after discounting for such delays. Bryan and Mason (2020) investigate whether auditors view earnings volatility as impacting risk and whether earnings volatility is expected to affect audit report lag using a sample of 13,075 firm-year data from 2004 to 2015. Their findings revealed a negative relationship between earnings volatility and audit report lag, which is consistent with auditors exerting greater effort in response to less variable profits. They also demonstrated that non-industry-specialist auditors, auditors with short tenure, and small and medium-sized auditor offices are responsible for the relationship between earnings volatility and audit report latency. Their research also revealed that when there is a large degree of earnings smoothing, low earnings volatility has a bigger influence on increasing audit report lag.

Edoumiekumo, Ogoun, and Nkak (2020) investigated the link between audit committee qualities and audit report lag of listed industrial enterprises in Nigeria using the Ordinary Least Square (OLS) and Hausman tests. The findings

revealed that the audit committee, as a whole, did not necessarily speed up the publication of audit-certified annual financials for enterprises in this industry. The results further showed that the amount of financial professionals on the committee as well as non-executive directors makes a significant contribution to guaranteeing the timeliness of audit-certified annual financial reporting. Akeem, Rufus, Abiodun, and Olawumi (2020) used the Generalized Method of Moments (GMM) estimation technique to explore the interplay between audit reporting lag and firm value in the Nigerian beverage and food industries. The findings revealed that audit lags did not affect the firm's market value.

Futhermore, Escaloni and Mareque (2021) attempted to determine the determinants of audit report lag in Spanish SMEs and to investigate the possible peculiarities of these factors in non-SMEs. Their findings revealed a significant relationship between audit report lag and opinion and crisis factors in both SME and non-SME models. They concluded that audit report lag is higher in SMEs and that the independent factors explaining report lag change depending on whether the organization is an SME or not. Ishaku, Abdulkarim, and Mohammed (2021) used dynamic panel-data estimation to investigate the moderating effect of audit quality on the relationship between board characteristics and audit report lag of listed non-financial companies in Nigeria. Audit quality has a negative and significant moderating effect on the relationship between board characteristics and audit report lag of listed non-financial companies in Nigeria.

However, the existing audit report lag literature in Nigeria overlooks earnings volatility and audit report lag since a comprehensive study on the problem has not been conducted. These studies have not investigated the relationship between earnings volatility and audit report lag. We contribute to the audit report lag literature by demonstrating how earnings volatility influences audit report lag of listed firms in Nigeria.

Hypothesis Development

As previously noted, Bryan and Mason (2020) contend that auditors may perceive higher or lower levels of earnings volatility as raising the risk. They anticipated that if auditors alter their effort in reaction to the risks associated with earnings volatility, the effort adjustment will be reflected in audit report lag. Based on this, it is postulated that earnings volatility has an impact on audit report lag for Nigerian listed corporations. As a result, we offer the following null hypothesis.

H_1: There is no significant relationship between Earnings volatility and audit report lag.

Methodology

Consistent with Lubis (2019), earnings volatility is measured by comparing operating profit and total assets and then equating earning volatility to the operating profit to total assets ratio. The audit report lag model is based on the Bryan and Mason (2020) model, which has been modified to determine the relationship between audit report lag and earning volatility, firm size, leverage, and the number of years a firm has been listed on the Nigerian Stock Exchange.

This study examines ten firms listed on the Nigerian Stock Exchange from 2012 to 2021 to discover if there is a relationship between earnings volatility and audit report lag. Sterling Bank Plc, Nestle Nigeria Plc, Lafarge Africa Plc, Chellarams Plc, Red Star Express Plc, Guinness Nig Plc, Presco Plc, Associated Bus Company Plc, Axamansard Insurance Plc, and Unilever Nigeria Plc are included in the data sample. Due to a lack of sufficient data, the investigation was limited to 10 firms. The model is defined in linear form as follows:

$$ARL_{it} = \beta_o + \beta_1 EV_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 AGE_{it} + £_i \quad \ldots\ldots 1$$

Where:

ARL_{it} = Audit report lag (Audit report lag is the number of days that pass between the end of a company's fiscal year and the signing date on the audit report)

EV_{it}=Earnings Volatility (measured as the operating profit to total assets ratio)

$SIZE_{it}$=The size of the firm (derived from the total asset (fixed asset + current asset))

LEV_{it}= Leverage (computed as the ratio of total leverage to the total asset of the company)

AGE_{it} = Number of years a firm has been listed in the Nigerian Stock Exchange

The study used the Levin, Lin, and Chu (2002) and the Im-Pesaran-Shin (2003) unit root tests to establish the order of integration of the variables in the model to empirically evaluate the preceding functional form. The Kao residual cointegration test is used to confirm the presence of a long-run relationship between the variables in the model, and the model is subsequently estimated using the Pooled Mean Group (PMG) estimation approach proposed by Pesaran, Shin, and Smith (1999). When all variables in the model are of the same order and different order of integration, i.e. I(0) or I(1) series, or a mix of I(0) and I(1) series, PMG can be used. All variables are transformed into their natural log to avoid econometric complications in the proposed model.

Result and Discussion

The table below shows the simple descriptive statistic of the variables in the model.

Table 1: Descriptive statistics of the variables

	ARL	EV	LEV	SIZE	AGE
Mean	1.475284	1.580421	0.929586	6.989530	1.290109
Median	1.531479	0.944629	1.004584	7.025995	1.454243
Maximum	1.973128	3.591706	1.885129	8.657663	1.740363
Minimum	0.041393	-0.086027	-1.072630	2.380923	0.000000

Source: Authors' computation, 2021

To establish the order of integration of the variables in the model, the Levin, Lin, and Chu (2002) and Im-Pesaran-Shin (2003) unit root tests were used. If the unit root is identified in the data, the problem of spurious regression will develop in panel data analysis. Table 2 displays the results.

Table 2: Panel Unit Root Test Result

Variables	Levin et al		Order of Integration	Variables	Im et al		Order of Integration
	Levels	First Diff.			Levels	First Diff.	
ARL	0.14192	-1.40567**	I(1)	ARL	0.31073	-1.54674**	I(1)
EV	-0.94232	-4.94662**	I(1)	EV	0.35711	-2.47508**	I(1)
LEV	-2.64156**	-	I(0)	LEV	-1.47420	-3.75710**	I(1)
SIZE	-0.00394	-1.73839**	I(1)	SIZE	0.12439	-1.23535**	I(1)
AGE	-12.0332**	-	I(0)	AGE	-93.6494**	-	I(0)

Source: Authors' computation, 2021

Notes: Values reported are t-statistics value.

** denote significance 5 percent.

The test was conducted with the assumption of intercept and no trend in both Levin et al (2002) and Im et al (2003) specification

Table 2 demonstrates that it is unclear whether Leverage is integrated at levels (I(0)) or first difference (I(1)) because both unit root tests produced different results. The correlation matrix illustrates the relationship between all of the variables used in the analysis.

A correlation is considered problematic if its coefficient is 0.8 or higher. A high degree of correlation between the explanatory variables, whether positive or negative, indicates a multicollinearity problem in the model. It is undesirable because it makes determining the individual impact of such correlated explanatory variables on the dependent variables difficult. A high correlation between dependent and explanatory factors, on the other hand, is ideal.

Table 3: Test of Multicollinearity

	LNARL	LNEV	LNLEV	LNSIZE	LNAGE
LNARL	1	-0.097	0.04	0.17	-0.07
LNEV	-0.097	1	-0.29	-0.008	-0.10
LNLEV	0.04	-0.29	1	0.08	0.18
LNSIZE	0.17	-0.008	0.08	1	-0.07
LNAGE	-0.07	-0.10	0.18	-0.07	1

There is no variable in the table above with a value greater than 0.8, indicating that there is no problem with multicollinearity. As long as the correlation coefficients of the variables are less than 0.8, they are deemed healthy.

A panel cointegration test is then performed on the data sample to assess whether the model shows a long-term relationship. After the unit-roots of the series have been explored, a cointegration analysis is performed. The Kao cointegration technique for the Panel cointegration test is used to assess the long-term relationship between the variables. As indicated in Table 3, the ADF t-statistic probability value is less than 5%, indicating that the variables in the model have a long-term relationship.

Table 4: Kao Residual Cointegration Test Result

ADF t-statistic	Probability
-2.719865	0.0033**

Source: Authors Computation, 2021
Note: Null Hypothesis: No cointegration.
** denotes significance at 5 percent
The Pooled Mean Group (PMG) estimate technique is used to study the link between earning volatility and audit report lag since the model comprises a long-run relationship. Table 4 displays the results of the Pooled Mean Group (PMG) approach. The Akaike information criteria determined that ARDL (1, 1, 1, 1) was the optimal lag length.

Table 5: PMG Regression Result

Dependent Variable: ARL	**PMG**
Convergence coefficient	-0.836866 (0.0000)**
Long-run Coefficients	
EV	0.216048 (0.0000)**
LEV	-0.191767 (0.0041)**
SIZE	-0.103658 (0.0000)**
AGE	1.612230 (0.0000)**
Short-run coefficient	
Δ (EV)	-0.093698 (0.2221)
Δ (LEV)	-0.055407 (0.6860)
Δ (SIZE)	-0.088412 (0.8158)
Δ (AGE)	-65.09857 (0.2947)
Auxiliary Parameters	

Hausman Test	1.874443 (0.7588)
No. of Companies	10
No. of Obs	100

Source: Authors' Computation, 2021
Standard errors are in parenthesis.
t-statistics is in square bracket.
**denotes significance at 5 percent.

Earning volatility (EV) and the number of years a firm has been listed on the Nigerian stock exchange (AGE) have a positive and significant impact on audit report lag at the 5% level of significance; leverage (LEV) and firm size (SIZE) have a significant negative impact on audit report lag in the region at the 5% level of significance. This demonstrates that increased earnings volatility and a firm that has been listed on the Nigerian stock market for a lengthier period experience the incidence of audit report lag in the Nigerian firms, whereas increased leverage and larger firm size are associated with a lower incidence of audit report lag in the long run. When firms have greater leverage (LEV) and are larger, the number of days between the end of the fiscal year and the signature date on the audit report (ARL) is reduced.

In particular, a percentage rise in earnings volatility (EV)) results in a 21.6 percent increase in audit report lag over time. In the short run, all of the control variables have an insignificant influence on audit report lag. They have no impact on the short-term audit report delayed. The findings indicate that when earnings volatility increases, audit report lag increases in the sample Nigerian firms. The findings contradict those of Bryan and Mason (2020), who discovered a negative relationship between earnings volatility and audit report lag, implying that auditors respond to decreased earnings volatility by increasing audit effort.

The Hausman test result is insignificant at the 5% level of significance, indicating that we fail to reject the null hypothesis of long-run homogeneity, indicating that the companies in the model have a long-run homogenous relationship. The Hausman test result validates the application of the PMG approach. For our selected PMG model, the convergence coefficient, which reflects the error correction component, has the anticipated negative sign and is significant at 5%. The average value of the convergence coefficient is 1.874443, according to the results.

Conclusion

Despite earnings volatility, being an important factor in the yearly audit process, the auditing literature rarely examines how earnings volatility affects audit report lag. The purpose of this research is to investigate the relationship between earnings volatility and audit report lag in Nigeria. To estimate the companies in the data set, Pooled Mean Group (PMG) estimation is utilized. The Kao cointegration results revealed the existence of a long-run relationship between the independent and dependent variables during the study. The findings show that if earnings volatility is higher, the audit report is delayed for a longer time. Furthermore, firms that have been listed on the Nigerian stock market for a longer period have a greater number of days between the end of the fiscal year and the day on which the audit report is signed. According to the research, increased earnings volatility corresponds with longer audit delays in the context of Nigeria.

In the Nigerian context, rising leverage and firm size are linked to fewer audit efforts. As a result, the study suggests Nigerian firms' auditors should schedule their audits carefully to minimize the period between year-end and the publishing of the annual report. During audits, management organizations in Nigeria should provide an enabling atmosphere as a matter of need. It is essential to have appropriate financial resources available for auditing to support the correct conduct of audits that will finally uncover misstatements in the reports. This would increase the quality of financial reporting in Nigerian firms.

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