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GREEN ACCOUNTING COST AND FINANCIAL PERFORMANCE OF OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT:

This study examined the effect of green accounting cost on return on equity, shareholders' fund, earnings per share, profit after tax, and net profit margin of selected oil and gas companies. The study covered a time frame of thirteen (13) years that is, from 2020 to 2022 based on available data from the annual reports of the concerned companies. The study employed an ex-post facto research design with the aid of the Panel Ordinary Least Square (POLS) and Granger Causality techniques to analyse the data. The result of Granger Causality test revealed that green accounting cost has no significant effect on return on equity, shareholders' fund, earnings per share, and net profit margin of oil and gas companies. In view of the findings, management of oil and gas companies in Nigeria should develop a well-articulated environmental costing system in order to guarantee a conflict free corporate atmosphere for improved return on equity.

1. INTRODUCTION

The impact of oil business activity on the environment is found in several forms: air, water, underground pollution, drinking water, land and habitat for endangered and threatened species, oceans, atmosphere, land, mass and so on, whereas array of pollutants, including toxic, hazardous and warming is accountable to business activities (Saman, 2019). During the fifties and sixties of the 19th century, people all over the world became more concerned about the quality of their environment. That is to say that the awareness of the environment and man's ability to cause damage started from the fifties of the 19th century. In recent years, the adverse environmental effect of economic development has become a matter of great public concern all over the world. Gradually, environment

is becoming a much more urgent economic, social and political problem. Therefore, accountants, as the basic custodian and light bearer of economic development can no longer shut their eyes to the effect of environmental issues on business management, accounting, auditing and disclosure system. Protection of environment and the potential involvement of accountants is becoming a common subject of discussion among the accountant all over the world. Nowadays, Accountants are expected to take a proactive role in the environmental protection process with the advent of liberalization. The outcome of this effort has been referred to as green accounting.

Green accounting is an inclusive aspect of sustainability accounting and reporting, thus, generates reports that provide environmental information to help make internal management decisions and external use by stakeholders (Iliemena, 2020). Akeem, Memba & Willy (2016) suggested that knowledge about the green accounting and their challenges should be adequately accounted for in compliance with standards; as a moral commitment to environmental stewardship and the desire to promote good relation with the residents of local communities, while the many ways in which environmental costs, losses or benefits may go unrecorded in traditional accounting systems is becoming obsolete. That is why green accounting and reporting, therefore, is of paramount importance today. However, the unserious attitudes of several companies not taking green accounting into consideration make performance below expectation. Another significant problem is the complete absence of environmental reporting standards, malfunctioning of the environmental management system and failure of our real sector to provide full accounting for environment costs incurred. It is disheartening to note that environmental management system is unduly complex, skewed, poorly administered, largely inequitable and loaded with unduly large number of overlapping penalties for non-compliance. The system is further exacerbated by poor policies, inconsistencies in legal application and low impact on the economy.

1.1 Objective of the Study

The objective of this study is to ascertain the effect of green accounting cost on return on equity, shareholders' fund, earnings per share, profit after tax, and net profit margin of selected oil and gas companies quoted on the Nigerian Exchange Group.

1.2 Hypothesis

The following hypothesis is formulated for this study:

H_O: Green accounting cost has no significant effect return on equity, shareholders' fund, earnings per share, profit after tax, and net profit margin of selected oil and gas companies quoted on the Nigerian Exchange Group.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Green Accounting

Green Accounting is a type of accounting that attempts to incorporate environmental costs into the financial results of operations (Rewadikar, 2014). It is accounting for any costs and benefits that arise from change to a firm's products and processes where the change also involves a change in environmental impact. It is also referred to "environmental accounting", "resource accounting", and "integrated environmental and economic accounting." It refers to the compilation of data relating to the environment into an accounting framework organized in terms of stocks and flows, and the interpretation and reporting of these data. Green accounting or environmental accounting is the practice of incorporating principles of environmental management and conservation into reporting practices and cost/benefit analyses (Rewadikar, 2014). Environmental accounting allows a business to see the impact of economically sustainable practices in everything. It allows accountants to report on the economic impact of those decisions to stakeholders so as to allow for proactive decision making about processes that simultaneously meet environmental regulations while adding to the bottom line (Inhrukd & Ordu, 2016).

According to Magara, Aming'a and Momanyi (2015), environmental accounting involves the identification, measurement and allocation of environmental costs, and the integration of these costs into business and encompasses the way of communicating such information to the companies' stakeholders. In this sense, it is a comprehensive approach to ensure good corporate governance that includes transparency in its societal activities (Magara, Aming'a & Momanyi, 2015).

2.1.2 Elements of Green Accounting

2.1.2.1 Environment Pollution Prevention Costs

These are costs of activities which are meant to prevent the production of contaminants and wastes which could cause damage to the environment. The costs include costs incurred in evaluating and selecting pollution control equipment, quality environmental consumables, designing processes,

designing products and carrying out environment studies. Others are auditing environmental risks and developmental management systems.

2.1.2.2 Environmental Detection Costs

Environmental detection costs are costs resulting from activities to determine if products, processes and other activities within the company are in compliance with appropriate environmental standards. The costs include auditing environmental activities, inspecting products and processes, developing environmental performance measures, testing contamination and measuring contamination level.

2.1.2.3 Environmental Internal Failure Costs

These are costs resulting from the activities performed because contaminants and wastes have been produced -but have not been discharged into the environment. Internal costs are incurred to eliminate and manage the wastes produced. The costs are costs for operating pollution control equipment, licensing facilities for producing contaminants and costs resulting from recycling scrap.

2.1.2.4 Environmental External Failure Costs

These are costs of activities performed after discharging contaminants and wastes into the environment. These costs are those for cleaning up a polluted lake, clearing up oil spills, cleaning up contaminated soil, settling personal injury claims which are environment related and restoring land to natural state among others.

2.1.3 Financial Performance

Financial performance measurement is a means by which organizational success as well as management ability and efficiency can be measured. According to Iswaita (2007), there are two kinds of performance, financial performance and non-financial performance; and financial profitability emphasizes on variables related directly to financial report. Dwivedi, (2002) also established that financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggression (Suchman, 2021). Company performance is very essential to management as it is an outcome which has been achieved by an individual or a group of individuals in an organization related to its authority and responsibility in achieving the goal legally, and conforming to the morale and ethics. Company's performance is evaluated in three dimensions. The first dimension is company's productivity, or processing inputs into outputs efficiently. The

second is profitability dimension, or the level of which company's earnings are bigger than its costs. The third dimension is market premium, or the level of which company's market value is exceeding its book value (Wang, 2002).

Researchers in the strategic management field have offered a variety of models for analyzing financial performance. However, little consensus has emerged on what constitutes a valid set of financial performance criteria. For instance, researchers have suggested that studies on financial performance should include multiple criteria analysis. This multidimensional view of financial performance implies that different models or patterns of relationship between corporate Profitability and its determinants will emerge to demonstrate the various sets of relationships between dependent and independent variables in the estimated models (Corrol, 2019). However, profitability measures have been mostly used and thus can give a quick assessment of the way the organization has fared financially. Profitability indicators such as Return on capital employed (ROCE), Net profit margin, and dividend per share. Earnings per share, have been used by previous studies (Dwivedi, 2002; Uwigbe & Egbide; 2012, Zayol, Agaregh & Enerji, 2017; Adewoye, Olaoye and Ogundipe, 2018) to measures financial performance of firms, especially in the oil and gas operations hence this study adopts ROCE and Net profit for performance. Similarly, the dimensions of CSR activities have been highlighted to include to the host communities, employees and government as a stakeholders (Bhattacharya, Korschun & Sen, 2009) why costs such as environmental expenditure, human development costs, social expenditure and infrastructure contribution to government, environmental impact assessment costs amongst others have been reported in sustainability reports of oil companies and used for research purposes (Uwiaghbe & Egbide, 2012; Ordu & Anele, 2016; Ironkwe & Success, 2017; Adewoye et al, 2018).

3. MATERIAL AND METHOD

This study employed *ex-post facto* research design. The population of this study comprises all ten (10) oil and gas companies quoted on the Nigerian Exchange Group Plc as at 31st December, 2022. For the purpose of the study, a purposive/judgmental sampling technique which is a type of non-probability sampling technique was utilized in selecting the sample size. Five (5) out of the ten (10) oil and gas companies constitute the sample size of this study because they have operated on the Exchange for a period of more than ten (10) years. There are Ardova Oil, Mobil Oil, MRS Oil, Oando Oil, and Total Nigeria. The study basically utilized secondary data that were extracted from the annual reports and statements of account of the sample quoted firms.

The dependent variable of the study (performance) was measured with five proxies such as Return on Assets (ROA), Return on Equity (ROE), Profit before Tax (PBT), Shareholder's Fund (SHF) and Earning per Share (EPS). Green Accounting Cost (GRCOST) represents the independent variable. Green cost constitutes the expenses incurred through companies' donations to purpose such as education, health, environmental protection, social activities and charitable gifts as a means of identifying with the aspiration of the communities as well as the environment within which they operates.

3.1 Model Specification

To examine the effect of green accounting cost on return on equity, shareholder's fund, earnings per share, profit after tax, and net profit margin of selected oil and gas companies in Nigeria, the following models stated in functional form were estimated:

$$ROE = f(GRCOST) \quad\text{...............} \quad 3.1$$
$$SHF = f(GRCOST) \quad\text{...............} \quad 3.2$$
$$EPS = f(GRCOST) \quad\text{...............} \quad 3.3$$
$$PAT = f(GRCOST) \quad\text{...............} \quad 3.4$$
$$NPM = f(GRCOST) \quad\text{...............} \quad 3.5$$

To avoid the possible effect of any outlier which will cast a dent to the result of the analysis, the variables were transformed to log-linear equations as follows:

Model 1
$$LogROE_t = a_0 + a_1 LogGRCOST_t + \mu_t \quad\text{...............} \quad 3.6$$

Model 2
$$LogSHF_t = a_0 + a_1 LogGRCOST_t + \mu_t \quad\text{...............} \quad 3.7$$

Model 3
$$LogEPS_t = a_0 + a_1 LogGRCOST_t + \mu_t \quad\text{...............} \quad 3.8$$

Model 4
$$LogPAT_t = a_0 + a_1 LogGRCOST_t + \mu_t \quad\text{...............} \quad 3.9$$

Model 5
$$LogNPM_t = a_0 + a_1 LogGRCOST_t + \mu_t \quad\text{...............} \quad 3.10$$

Where:

ROE = Return on Equity

SHF = Shareholder's Fund

EPS = Earnings per Share

PAT   =   Profit after Tax

NPM   =   Net Profit Margin

GRCOST =   Green Accounting Cost

β_0 =   Constant parameter

μ =   Error term

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

The mean data of the selected firm as computed by E-views 10.0 software via the criteria of *Mean Plus SD Bound* are detailed in this sub-section. The annual reports of the selected oil and gas companies spanning from 2010 to 2022 provided the data used in the analysis. The average data on return on equity, shareholders' fund, earnings per share, profit after tax, net profit margin, and green accounting cost are presented in Table 1.

Table 1: Return on Equity, Shareholders' Fund, Earnings per Share, Profit after Tax, Net Profit Margin, and Green Accounting Cost from 2020 to 2022

Year	Return on Equity (%)	Shareholder' Fund (N' 000)	Earnings Per Share (N' Kobo)	Profit after Tax (N'000)	Net Profit Margin (%)	Green Accounting (N'000)
2010	0.59	20,100,000	740	3,270,000	0.01	42,800,000
2011	0.55	30,100,000	1,740	8,950,000	0.03	800,000
2012	-0.25	26,400,000	142	1,440,000	0.18	74,000,000
2013	0.22	30,000,000	1,001	4,330,000	0.13	36,700,000
2014	0.18	49,300,000	1,800	3,120,000	0.10	29,000,000
2015	-0.02	24,400,000	671	-8,690,000	-0.91	34,500,000
2016	-0.06	22,800,000	498	-7,860,000	-1.49	32,600,000
2017	0.57	19,900,000	1,446	-155,000	0.58	59,200,000
2018	-0.45	15,300,000	1,021	-2,490,000	0.02	80,300,000
2019	0.06	76,100,000	875	-333,000	0.02	20,900,000
2020	0.00	-51,000,000	544	-9,960,000	-0.02	22,100,000
2021	-0.02	-12,700,000	253	-6,510,000	0.07	37,900,000
2022	0.12	17,700,000	1,417	5,200,000	0.02	12,100,000

Source: Authors Computation

4.1 Panel Co-integration Test

The Pedroni Residual co-integration is a panel co-integration test for heterogeneous panels with multiple regressors. The null hypothesis of Pedroni's test is no co-integration, and the test allows for unbalanced panels, including heterogeneity in both the long-term co-integration vectors. There are seven panel co-integration statistics, first part is based on the within dimension approach, including the panel v statistic, the panel rho Statistic, the panel PP statistic and the panel ADF statistic; the second part is based on the between-dimension approach, including the group rho statistic, the group PP statistic and the group ADF statistic. The majority of the estimate findings of the Pedroni's Residual panel co-integration tests shown in Tables 2 - 6 suggest that the null hypothesis of no co-integration can be rejected at the 5% level of significance. This suggests that green accounting cost has a long-term relationship with the financial performance of selected oil and gas companies measured by return on equity, shareholders fund, earnings per share, profit after tax, and net profit margin. This is to say that financial performance indicators: return on equity, shareholders fund, earnings per share, profit after tax, and net profit margin of selected oil and gas companies have a long run relationship with green accounting cost.

Table 2: Pedroni Co-integration Result for ROE → GRCOST

	T-Statistic	**Prob.****
Within Group		
Panel v-Statistic	-1.448451	0.9263
Panel rho-Statistic	-3.632789	0.0001
Panel PP-Statistic	-5.960854	0.0000
Panel ADF-Statistic	-2.552899	0.0053
Between Group		
Group rho-Statistic	-0.869230	0.1924
Group PP-Statistic	-4.819197	0.0000
Group ADF-Statistic	-1.268249	0.1024

Source: Computer output data using E-views 10.0

Table 3: Pedroni Co-integration Result for SHF → GRCOST

	T-Statistic	**Prob.****
Within Group		
Panel *v*-Statistic	0.265302	0.3954
Panel *rho*-Statistic	-1.219235	0.0114
Panel *PP*-Statistic	-1.879984	0.0301
Panel *ADF*-Statistic	-2.207783	0.0077
Between Group		
Group *rho*-Statistic	0.618472	0.7319
Group *PP*-Statistic	-3.828832	0.0001
Group *ADF*-Statistic	-1.698539	0.0447

Source: Computer output data using E-views 10.0

Table 4: Pedroni Co-integration Result for EPS → GRCOST

	T-Statistic	**Prob.****
Within Group		
Panel *v*-Statistic	-0.568752	0.7152
Panel *rho*-Statistic	-2.540347	0.0055
Panel *PP*-Statistic	-8.250614	0.0000
Panel *ADF*-Statistic	-6.215502	0.0000
Between Group		
Group *rho*-Statistic	0.182960	0.5726
Group *PP*-Statistic	-4.090167	0.0000
Group *ADF*-Statistic	-3.832742	0.0001

Source: Computer output data using E-views 10.0

Table 5: Pedroni Co-integration Result for PAT → GRCOST

	T-Statistic	Prob.**
Within Group		
Panel *v*-Statistic	-0.404645	0.6571
Panel *rho*-Statistic	-2.349328	0.0034
Panel *PP*-Statistic	-2.148086	0.0055
Panel *ADF*-Statistic	-1.879923	0.0471
Between Group		
Group *rho*-Statistic	0.153487	0.5610
Group *PP*-Statistic	-1.703629	0.0442
Group *ADF*-Statistic	-1.849446	0.0037

Source: Computer output data using E-views 10.0

Table 6: Pedroni Co-integration Result for NPM → GRCOST

	T-Statistic	Prob.**
Within Group		
Panel *v*-Statistic	-1.755231	0.9604
Panel *rho*-Statistic	-0.976006	0.1645
Panel *PP*-Statistic	-3.115535	0.0009
Panel *ADF*-Statistic	-2.904801	0.0018
Between Group		
Group *rho*-Statistic	-0.741029	0.2293
Group *PP*-Statistic	-7.172876	0.0000
Group *ADF*-Statistic	-2.201109	0.0139

Source: Computer output data using E-views 10.0

4.1.1 Panel OLS Analysis of Green Accounting Cost and Financial Performance of selected Oil and Gas Companies in Nigeria

4.1.1.1 Return on Equity and Green Accounting Cost

The Hausman test in Table 7 suggests that the random effect estimation is preferred to fixed effect due to insignificant p-value of the Chi-square. There is an insignificant negative relationship between return on equity and green accounting cost. A percentage increase in green accounting cost will lead to 2.34 factor depreciation in return on equity of selected oil and gas companies. If green accounting cost is held constant, return on equity would be estimated to be 20.17%. The adjusted R-square value of 0.037831 is an insinuation that only 3.78% changes in return on equity was as a result of joint variation in green accounting cost. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the aforementioned magnitude of changes in return on equity was insignificantly (more than 0.05) explained by green accounting cost. The traditional Durbin Watson test of autocorrelation shows a value of 1.95, which implies that there is no autocorrelation in the model.

Table 7: Panel OLS of Green Accounting Cost and Financial Performance: ROE

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	0.201752	0.0490	0.187181	0.0765	0.201752	0.0532
GRCOST	-2.34E-09	0.0654	-1.95E-09	0.1510	-2.34E-09	0.0704
R-squared	0.052865		0.204125		0.052865	
Adjusted R-squared	0.037831		0.001255		0.037831	
S.E. of regression	0.719180		0.732722		0.719180	
Sum squared resid	32.58484		27.38094		32.58484	
Log likelihood	-69.78845		-64.13345			
F-statistic	3.516392		1.006188		3.516392	
Prob(F-statistic)	0.065401		0.459621		0.065401	
Durbin-Watson stat	1.957515		1.910162		1.957515	
	Hausman Specification Test					
	Chi-Sq. Statistic		0.916475			
	P-value		0.338400			

Source: Output Data using E-view 10.0.

Note: Periods included: 13; Cross-sections included: 5; Total Number of Observations: 65

4.1.1.2 Shareholders' Fund and Green Accounting Cost

As can be seen in Table 8, green accounting cost has significant negative relationship with shareholders' fund based on the result of the Hausman test which indicated the suitability of the random effect estimation. A percentage increase in green accounting cost leads to 22.40% appreciation in shareholders' fund of selected oil and gas companies. Holding green accounting cost constant would result in 10,580,819 million increase in shareholders' fund. From the adjusted R-square, 13.41% variation in shareholders' fund of selected oil and gas companies was attributed to green accounting cost. There is no need to worry about the significant of this variation as the p-value (0.00) and the F-statistic (10.91) showed that green accounting cost was significant in explaining the changes in shareholders' fund. The Durbin Watson is 0.85 shows an element of autocorrelation in the model but this was corrected using the serial correlation test.

Table 8: Panel OLS of Green Accounting Cost and Financial Performance: SHF

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	10580819	0.0576	9723607.	0.0881	10580819	0.0603
GRCOST	0.224098	0.0016	0.247164	0.0012	0.224098	0.0018
R-squared	0.147664		0.294656		0.147664	
Adjusted R-squared	0.134135		0.114863		0.134135	
S.E. of regression	39138149		39571308		39138149	
Sum squared resid	9.65E+16		7.99E+16		9.65E+16	
Log likelihood	-1227.585		-1221.433			
F-statistic	10.91450		1.638860		10.91450	
Prob(F-statistic)	0.001576		0.104987		0.001576	
Durbin-Watson stat	0.850451		0.805993		0.850451	

Hausman Specification Test		
	Chi-Sq. Statistic	1.087622
	P-value	0.297000

Source: Output Data using E-view 10.0.

Note: Periods included: 13; Cross-sections included: 5; Total Number of Observations: 65

4.1.1.3 Earnings per Share and Green Accounting Cost

The result in Table 9 shows the preference of the random effect estimation which envisages that green accounting cost has significant negative relationship with earnings per share of selected oil and gas companies in Nigeria. A unit increase in green accounting cost rate results in 8.16 factor depreciation in earnings per share of selected oil and gas companies. When green accounting cost is held constant, earnings per share would be valued at 964.76 Kobo. The result in Table 9 shows the adjusted R-square value to be -0.014021, an insinuation that 0.14% negative changes in earnings per share was as a result of variation in green accounting cost. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the aforementioned magnitude of changes in earnings per share was significantly (more than 0.05) explained by green accounting cost. The traditional Durbin Watson test of autocorrelation shows a value of 1.39, which is still within the range of no autocorrelation in the model.

Table 9: Panel OLS of Green Accounting Cost and Financial Performance: EPS

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	964.7635	0.0000	934.2608	0.0000	964.7635	0.0000
GRCOST	-8.16E-07	0.7356	4.99E-09	0.9985	-8.16E-07	0.7431
R-squared	0.001823		0.141915		0.001823	
Adjusted R-squared	-0.014021		-0.076812		-0.014021	
S.E. of regression	1387.697		1430.016		1387.697	
Sum squared resid	1.21E+08		1.04E+08		1.21E+08	
Log likelihood	-561.5163		-556.6014			
F-statistic	0.115054		0.648822		0.115054	
Prob(F-statistic)	0.735590		0.801140		0.735590	
Durbin-Watson stat	1.391661		1.162493		1.391661	

Hausman Specification Test

Chi-Sq. Statistic	1.054525	
P-value	0.304500	

Source: Output Data using E-view 10.0.

Note: Periods included: 13; Cross-sections included: 5; Total Number of Observations: 65

4.1.1.4 Profit After Tax and Green Accounting Cost

As can be seen in Table 10, green accounting cost has insignificant negative relationship with profit after tax of oil and gas companies as dispelled by the random effect estimation. A percentage increase in green accounting cost leads to 3.84% depreciation in profit after tax of oil and gas companies. Holding green accounting cost constant would result in N1,163,902 million appreciation in profit after tax. From the adjusted R-square, 46.57% variation in profit after tax was attributed to green accounting cost. There is no need to worry about the significant of this variation as the p-value (0.00) and the F-statistic (26.71) vehemently showed that green accounting cost was significant in explaining the changes in profit after tax. The Durbin Watson of 1.91 shows that there is no element of autocorrelation in the model.

Table 10: Panel OLS of Green Accounting Cost and Financial Performance: PAT

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	1181738.	0.5303	1044347.	0.5802	1163902.	0.5588
GRCOST	-0.039106	0.1024	-0.033985	0.1750	-0.038435	0.1075
PAT (-1)	0.666118	0.0000	0.706857	0.0000	0.671587	0.0000
R-squared	0.476425		0.586113		0.483822	
Adjusted R-squared	0.458054		0.469145		0.465711	
S.E. of regression	12845183		12713070		12645068	
Sum squared resid	9.40E+15		7.43E+15		9.11E+15	
Log likelihood	-1065.706		-1058.654			
F-statistic	25.93351		5.010881		26.71356	
Prob(F-statistic)	0.000000		0.000021		0.000000	
Durbin-Watson stat	1.904678		1.952284		1.910986	

Hausman Specification Test

Chi-Sq. Statistic	1.391845	
P-value	0.498600	

Source: Output Data using E-view 10.0.

Note: Periods included: 13; Cross-sections included: 5; Total Number of Observations: 65

4.1.1.5 Net Profit Margin and Green Accounting Cost

The Hausman test in Table 11 suggests that the random effect estimation is preferred to fixed effect due to insignificant p-value of the Chi-square. There is an insignificant negative relationship between net profit margin and green accounting cost. A percentage increase in green accounting cost will lead to 1.83 factor depreciation in net profit margin of selected oil and gas companies. If green accounting cost is held constant, net profit margin would be estimated to be -2.82%. The adjusted R-square value of -0.003019 is an insinuation that only -0.30% negative changes in net profit margin was as a result of variation in green accounting cost. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the aforementioned magnitude of changes in net profit margin was insignificantly (more than 0.05) explained by green accounting cost. The traditional Durbin Watson test of autocorrelation shows a value of 1.85, which implies that there is no autocorrelation in the model.

Table 11: Panel OLS of Green Accounting Cost and Financial Performance: NPM

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	-0.029587	0.8578	-0.005750	0.9724	-0.028240	0.8669
GRCOST	-1.79E-09	0.3834	-2.43E-09	0.2592	-1.83E-09	0.3727
R-squared	0.012084		0.208918		0.012653	
Adjusted R-squared	-0.003597		0.007269		-0.003019	
S.E. of regression	1.176270		1.169884		1.169028	
Sum squared resid	87.16745		69.80009		86.09751	
Log likelihood	-101.7679		-94.54656			
F-statistic	0.770593		1.036049		0.807348	
Prob(F-statistic)	0.383369		0.433458		0.372327	
Durbin-Watson stat	1.851804		1.843318		1.851456	

Hausman Specification Test

	Chi-Sq. Statistic	0.907846
	P-value	0.340700

Source: Output Data using E-view 10.0.

Note: Periods included: 13; Cross-sections included: 5; Total Number of Observations: 65

4.1.2   Granger Causality Effect Analysis

With regard to effect determination, the granger causality test was chosen. The essence of choosing the granger causality over ordinary least square regression is based on the fact that it takes into consideration the dynamic nature of variables. Furthermore, for a variable to have effect on another it must cause it move or granger cause it, and it is only the granger causality test that offers such tool of effect assessment. The lag length selected was one (1) on the premises that the data applied were gotten from the annual reports of the selected oil and gas companies were on yearly/annual bases. The result according to Table 12, green accounting cost has no discernible/significant effect on four financial performance variables: return on equity, shareholders' fund, earnings per share, and net profit margin. This is on the argument that causality do flows green accounting cost to return on equity, shareholders' fund, earnings per share, and net profit margin at 5% level of significance. On the contrary, green accounting cost has significant effect on profit after tax of selected oil and gas companies. This is because causality runs from green accounting cost to profit after tax of selected oil and gas companies in Nigeria at a significance level of 5%.

Table 12: Granger Causality Test on Green Accounting Cost and Financial Performance

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
GRCOST does not Granger Cause ROE	60	1.02765	0.3653	No Causality
ROE does not Granger Cause GRCOST		2.75413	0.0733	No Causality
GRCOST does not Granger Cause SHF	60	0.33646	0.7159	No Causality
SHF does not Granger Cause GRCOST		2.76017	0.0729	No Causality
GRCOST does not Granger Cause EPS	60	0.30437	0.7389	No Causality
EPS does not Granger Cause GRCOST		0.06020	0.9416	No Causality
GRCOST does not Granger Cause PAT	60	8.98709	0.0005	Causality
PAT does not Granger Cause GRCOST		0.56885	0.5698	No Causality
GRCOST does not Granger Cause NPM	60	0.92133	0.4046	No Causality
NPM does not Granger Cause GRCOST		5.76915	0.0056	No Causality

Source: Output Data using E-views 10.0

4.2 Test of Hypothesis

4.2.1 Decision Criteria: If the p-value of F-statistic in granger causality test is less than 0.05, the null hypothesis is rejected. On the other hand, if the p-value of F-statistic in granger causality test is greater than 0.05, the null hypothesis is accepted.

4.2.2 Restatement of Research Hypothesis

H$_O$:   Green accounting cost has no significant effect return on equity, shareholders' fund, earnings per share, profit after tax, and net profit margin of selected oil and gas companies quoted on the Nigerian Exchange Group.

Table 13: Test of Hypothesis

Hypotheses	Estimated Equation	F-Statistic	P-Value	Decision
Premise 1	ROE $\rightarrow$ GRCOST	1.02765	0.3653	Accept H$_0$ & Reject H$_1$
Premise 2	SHF $\rightarrow$ GRCOST	0.33646	0.7159	Accept H$_0$ & Reject H$_1$
Premise 3	EPS $\rightarrow$ GRCOST	0.30437	0.7389	Accept H$_0$ & Reject H$_1$
Premise 4	PAT $\rightarrow$ GRCOST	8.98709	0.0005	Reject H$_0$ & Accept H$_1$
Premise 5	NPM $\rightarrow$ GRCOST	0.92133	0.4046	Accept H$_0$ & Reject H$_1$

Source: Granger Causality Output from Table 4.10

Table 13 depicts the acceptance of the null hypotheses for Premise one (1), Premise two (2), Premise three (3), and Premise five (5) as the p-values (0.3653), (0.7159), (0.7389), and (0.4046) respectively in the Granger Causality output in Table 13 are higher than 0.05 (insignificant at 5% level of significance) which is in line the hypothesis decision rule, hence the acceptance of Premise one (1), Premise two (2), Premise three (3), and Premise five (5) accordingly. In the same vain, Premise four (4) was rejected on the argument that the p-value (0.0000) in the Granger Causality output in Table 13 is lower than 0.05 (significant at 5% level of significance) thus the acceptance of Premise four (4).

The Pedroni Residual co-integration in Tables 2 - 6 shows that green accounting cost and financial performance selected oil and gas companies in Nigeria measured by return on equity, shareholders' fund, earnings per share, profit after tax, and net profit margin have a long-term connection. This portrays the fact that green accounting cost decisions has the potential to determining financial performance of selected oil and gas firms in Nigeria. In Nigeria, it is disheartening to note that green accounting cost management system is unduly complex, skewed, poorly administered, largely inequitable and loaded with unduly large number of overlapping penalties for non-compliance. This has led to the insurgencies in the Niger Delta region which houses the exploration of oil and gas companies in Nigeria.

Table 7 unveils the short-run relationship between return on equity and green accounting cost of selected oil and gas companies in Nigeria. It was found that green accounting cost has negative

insignificant relation with return on equity of oil and gas companies in Nigeria. This supports the findings of Yahaja (2019) on the negative association between green accounting and return on equity. On the contrary, it negates the studies of Obida, Owolabi, Enyi and Akintoye (2019) and Nwaiwu and Oluka (2018) on the positive linkage between green accounting and return on equity. On the significant effect of green accounting on return on equity, the result of this study rejects the findings of Obida, Owolabi, Enyi and Akintoye (2019) and Nwaiwu and Oluka (2018), and Osemene, Kolawole and Oyelakun (2016).

In Table 8, there is a significant positive relationship between shareholders' fund and green accounting cost. This provides evidence that when management of oil and gas firms fully disclose their environmental expenses unambiguously, the insurgency tension in oil and gas host community may reduce leading to appreciation in equity contribution to improving business operation. This agrees with Dike and Micah (2018) and Alhashi, Nobanee and Khare (2018) who established the importance of environmental accounting in positively influencing shareholders fund. The inability of the granger causality test to affect shareholders' fund is not in tandem with Nnamani, Onyekwelu and Ugwo (2017) and Nnamani, Onyekwelu and Ugwo (2017) who found that green accounting disclose has a strong potential in improving shareholders' fund. Table 9 shows that earnings per share is negatively and insignificantly related with green accounting cost. The implication is that high cost on green accounting would drastically affect earnings per share of the selected oil and gas firms in Nigeria. The insignificant effect of green accounting cost supports the study of Malarvizhi and Ranjanni (2016) on the no significant relationship between the level of environmental disclosure and firm performance in India and Ironkwe and Ordu (2016) in Nigeria.

Table 10 envisages the insignificant negative relationship between profit after tax and green accounting cost. This is in line with a priori expectation. However, the contrary, the granger causality result in Table 13 sprung up a surprise that green accounting cost has significant effect on profit after tax of selected oil and gas companies. This entails that oil and gas firms profit after tax may decline if they unnecessary spend on the environment owing to their inability to adhere to corporate social responsibility of the host communities. The finding that green accounting cost does not positively and significantly affect revenue of oil and gas companies in Nigeria supports the works of Raymond, John, Racheal and Ben (2016). Conversely, it is in disagreement with Islam, Miah and Fakir (2015) and Musa, Teru and Bukar (2015) who found that pollution, size of the firm, leverage and performance have positive effect on environmental disclosure because of the expected reactions of investors for the safety of their investments.

With regards to net profit margin, Table 11 shows that there is a negative but insignificant relationship with green accounting cost. Equally, the granger causality test did not provide any evidence on the positive and significant effect of green accounting cost on net profit margin. This may be attributed to the vulnerable and deteriorating nature of the host communities housing these oil and gas companies. The host communities are consistently complaining of neglect by oil and companies which has resulted in environmental degradation and pollution of water and air in host communities. This is line with Uzoma and Mgbemena (2015) that activities associated with petroleum exploration, development and production operations have local detrimental and significant impacts on the atmosphere, soils and sediments, surface and groundwater, marine environment and terrestrial ecosystems in the Niger Delta.

CONCLUSION AND RECOMMENDATIONS

Green accounting is an inclusive aspect of sustainability accounting and reporting, thus, generates reports that provide environmental information to help make internal management decisions and external use by stakeholders. This study established that financial performance assessed by profit after tax of selected oil and gas companies is significantly affected by green accounting cost. Conversely, return on equity, shareholders fund, earnings per share, and net profit margin are significantly affected by green accounting cost. To this effect, the findings of this study should not be viewed as conclusive empirical evidence, but rather an additional motivation for which scholars can develop new idea for further research on the nexus between green accounting and financial performance of companies in the oil and gas sector.

In view of the research findings, the following recommendations are put forward for consideration and implementation by firms' managements:

1. Management of oil and gas companies in Nigeria should develop a well-articulated environmental costing system in order to guarantee a conflict free corporate atmosphere for improved return on equity.

2. Oil and gas companies should establish efficient production of products with reasonable rates without harmful effect on sustainable development, will result into the reduction of environmental effect and have positive effect to increasing shareholders' fund.

3. Oil and gas companies in Nigeria should invest reasonable amount of their earnings on sustainability activities while specific accounting templates be articulated by professional accounting regulating bodies such as ICAN, ANAN, etc. to guide companies' reportage on sustainability activities. The Financial Reporting Council of Nigeria (FRC) and others

alike should make sustainability reporting compulsory while adequate sanctions are spelt out and enforced on defaulting organizations to serve as a deterrent.

4. Indigenous and multinational oil and gas companies should ensure that strict policies as regards green/environmental accounting are adhered to, in order to enable stable organizational performance with respect to revenue which ultimately determines the profit after tax.

5. Environmental Regulation Agency should collaborate with the Financial Regulation Council of Nigeria (FRCN) to make environmental reporting a necessity in annual reports of oil and gas companies in Nigeria.

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CORPORATE GOVERNANCE AND AUDIT REPORT LAG IN NIGERIA

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ABSTRACT:

This study has been carried out to investigate corporate governance and audit report lag in Nigeria. The study used ex-post factor research design. The population of the study consist of eight (8) quoted oil and gas companies on the Nigerian Exchange Group (NEG) as at 31st December 2022. Out of the eight listed oil and gas companies 7 were used as sample size due to availability of data using the purposive sampling technique. The study period is from 2012-2021. The data were collected from the annual reports and accounts of the seven (7) sampled quoted oil and gas companies on the Nigerian Exchange Group (NEG) and were analyzed using the descriptive and inferential statistics and the hypothesis were tested using panel corrected Standard Error. The results show that board of directors has positive and insignificant effect on audit report lag while audit committee size has positive and significant effect on audit report lag. We concluded that the size of the audit committee has a significant role to play in achieving early audit report lag. The study recommended that a good size and experienced individual should be encouraged to achieve a better audit report lag.

1. INTRODUCTION

In recent times, the world has witnessed the collapse of high profile companies, which has been attributed to large scale fraud by directors in connivance with auditors. Sighting the cases of Enron, Cadbury plc, WorldCom, Parmalat, Pollypeck, and many other cases too numerous to be mentioned. This wide cry brought about once more the debate for corporate governance to be in place which will ensure that companies are well managed by the directors and other management staff to whom shareholders have entrusted this function. According to Bhasin (2010), the growing number of scandals, and subsequent widespread public and media outcry, a number of governance norms, codes, best practices and standards have sprouted all over the world. The Cadbury Committee in the UK took

the innovative step of responding to this outcry. The OECD's corporate governance principles and the Sarbanes-Oxley Act in the USA came after this. Ho et al. (2008) claim that management have realized the financial gains that come from helping investors understand the business and find trustworthy sources of information so they can make an educated choice. According to Habbash (2010), effective governance consists of a composed Board and a capable audit committee.

Shleifer and Vishnu (1997) define corporate governance as the ways in which suppliers of finances to corporations assure themselves of getting a return on their investment. Gillan and Starks (2000) defines corporate governance as the system of laws, rules and factors that control operations at a company. The issue of timeliness involves and demands that the management of the company who prepares the reports and the auditor who provides the audit and assurance must be thoughtful about timeliness. Orake et al., (2019) defined financial reporting timeliness as the period between an entity's accounting year end and the publication of the financial report to the users of accounting information. The author noted that audit lag is the number of days between the accounting year end and the date the external auditor signs the financial statements. Enofe et al., (2013) opined that for annual report to be relevant, the provision of information must have predictive or feedback value that information should be provided in time. However, the study was motivated by the need to bridge the research gap from numbers of empirical literatures reviewed on corporate governance and audit report lag in Nigeria. Since findings of previous empirical studies reviewed failed to use a wider time horizon, and the sector used for this sector used for this study is another unique factor. The study covered a period of 10 years (2012 - 2021) and focuses on quoted oil and gas companies in the Nigerian Exchange Group (NEG). To this end, there lies a knowledge in gap that this study requires to fill.

1.1 Objectives of the Study

The broad objective of this study is to determine and analyze the effects of corporate governance on audit report lag.

The specific objectives of this study are to:

1. examine the effects of Board of Directors on audit report lag of quoted oil and gas companies in Nigeria;

2. investigate the effect of audit committee size on audit report lag of quoted oil and gas companies in Nigeria.

1.2 Research Questions

1. What is the effect of Board of Directors on audit report lag of quoted oil and gas companies in Nigeria?

2. What is the effect of audit committee size on audit report lag of quoted oil and gas companies in Nigeria.

1.3 Research Hypotheses

H_{O1}:   Board of Directors has no significant effect on audit report lag of quoted oil and gas companies of Nigeria.

H_{O2}:   Audit committee size has no significant effect on audit report lag of quoted oil and gas companies in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Corporate Governance

The practices and techniques of creative accounting and fraudulent reporting contributes to the collapse of bigger companies such as Enron, WorldCom, Palamat, Polly Peck, et cetera. (Nori, 2013). Attempt by most organizations to make profit or record gains at all cost whether through legal means or not had taken various dimensions which have a lot of negative effects not only on financial statements reported but also on moral values. Different industries had devised various ways to carry out this conduct, which later backfired on them since, as in the case of Enron, what goes up must come down. It was revealed in November 2001 that Enron's top executives have been overstating their earnings by several hundreds of million dollars. After overstating their earnings, they sold their company stock prior to their company's downfall (Oyedokun, 2020). This ugly development brought about once more the debate for corporate governance to be in place which will ensure that companies are well managed by directors and other management staff to whom shareholders have entrusted this function. Michael (2015) as cited in Cohen et al., (2004) demonstrated that corporate governance has a vital function in ensuring quality and timeliness of financial reporting. Corporate governance was described by Shleifer and Vishnu (1997) as the means by which financial backers of firms ensure themselves of receiving a return on their investment. Corporate governance, seen from a broader perspective, is all about managing a company in a way that ensures its owners or shareholders obtain a fair return on their investment while also satisfying the needs of other stakeholders. Habbash (2010) opined that functional governance comprises structure of a competent audit committee and a composed Board. Realizing the need to align with international best practices, Nigeria has

implemented a voluntary corporate governance code rather than taking a regulatory approach by encouraging companies on how to improve their governance and information disclosure of corporate financial reports in Nigeria has been a statue in the Companies and Allied Matters Act, Cap. C20, Laws of the federation of Nigeria 2004 (CAMA). Section 34 of the SEC (2011) code highlighted the disclosure requirements are intended to, and actually do, extend beyond the statutory requirements in the CAMA.

2.1.2 Financial Reporting Timeliness

Financial reporting timeliness refers to the number of days taken from the end of the financial year of the organization to the date its financial statements are published. According to Adullah (2007), providing the annual reports in a timely manner is not only a matter of satisfying the legal requirements, it is a matter of responsibility. This is because annual reports become the main source of corporate information. One measure of transparency and quality of financial reporting is timeliness. The elapse of time between a company's year-end and the date when financial information is released to the public is related to the quality of information reported. Oraka et al. (2019) defined financial reporting timeliness as the period between an entity's accounting year end and the publication of financial report to the user(s) of accounting. The author noted that audit lag is the number of days between the accounting year and the date the external auditor signs the financial statements. Biddle et al. (2008) describes financial reporting quality as representing an entity's economic activities and events with total correctness and accuracy. Financial reporting quality in its totality should present the right information capable of influencing the user's decision-making. Similarly, Lukason and Camacho-Minanol (2020) defined financial reporting timeliness as the ability of managers to meet the submission deadline of financial statements set by Law. Hossain and Taylor (1998), using univariate and multivariate analysis for Pakistanis listed companies, concluded that corporate attributes do not have a significant relationship with timely financial reporting.

2.1.3 Board of Directors

The Board of Directors control the affairs of the company in a lawful and efficient manner, such that the company continuously improve on its value creation. The Board is responsible for setting the strategic direction of the company and for overseeing and monitoring its business affairs. The Board is also saddled with the responsibility of developing and implementing sustainable policies that reflects the company's recognition of its stakeholders which includes customers, employees, shareholders, communities and the environment. Each directors has experience, knowledge, qualification, expertise and integrity necessary to effectively discharge the duties of the Board of

Directors. Another corporate governance issue with well-established international best practices relates to the committees of the Board of Directors. As a general company law principles, directors are empowered to establish committees to facilitate the discharge of their responsibilities. There are provisions in the Companies and Allied Matters Act, Cap. 20, Laws of the Federation of Nigeria 2004 (CAMA) that vested directors with the power to set up committees. In the first place, section 64 (a) provides that unless otherwise provided in the CAMA or in the Articles of Association Of A Company, "the Board of Directors of the company may exercise their powers through committees consisting of such members of the body as they deem fit.

2.1.4 Audit Committee Size

The audit committee refer to the committee appointed companies and respective Boards with the key objective of raising standard of corporate governance. The committee serves as a link between the Board of Directors and the external auditors of the companies. The committee should not be under the influence of any dominant personality on the main Board, neither should they get in the way and obstruct executive management. Audit committees are expected to play significant roles in monitoring the entire process of financial reporting. The size or number of the members of any given audit committee gives the clear signal of resources available to such committee. Klein (2002) opined that the potential problems in the reporting process are mostly revealed and determined by larger audit committees. In theory, as stated by the CAMA 2004, firms are likely to produce probable financial statements than those having audit committees constituted without considering the provisions of the Act. (Li et al., 2008; Persons, 2009) found that audit committee size influences corporate disclosures and disclosure practices. (Vafeas, 2005; Dezoort et al., 2002) argued that for audit committees to be more effective in the performance of their oversight functions, their respective composition must be made of adequate members.

Empirical documentation also reveal that large audit committees will enable other sub-committees to effectively assess the work carried out by external auditors within short and stipulated time (Rahmat et al., 2009).

2.2 Theoretical Review

Edward Freeman was the first to publish on stakeholder theory in 1984. In the theory, he argued that a firm should create value for all stakeholders, not just shareholders. The stakeholder theory is a theory of organizational management and business ethics that accounts for multiple constituencies impacted by business entities like employees, suppliers, local communities, creditors, and others. It addresses morals and values in managing an organization, such as those related to social responsibility, market

economy, and social contract theory. According to Antonelli et al. (2016), stakeholder theory goes beyond shareholders, actions and decisions of companies effect several agents, these agents and their interests must be protected. This theory suggests that the primary objective of a firm should not be shareholder wealth maximization, rather it should be stakeholder wealth maximization. Antonelli et al. (2016) further buttress that stakeholders are those persons or institutions that interact with a firm and that the accounting scope of agency theory is narrowing. The stakeholder theory is appropriate for this study because it recognizes the need for all stakeholders in the annual report while prescribing timeliness to financial reports.

2.3 Empirical Review

Ahnaf (2018) reviewed the Board of Directors. The timing of financial reports depends on characteristics and ownership type. For the years 2011 to 2015, information was gathered from 68 annual reports of publicly traded firms on the Amman Stock Exchange (ASE). The results showed that there is no discernible relationship between board size and timely financial reporting. Financial reporting timeliness is negatively impacted by boards with less than eight members and positively impacted by boards with more than eight members. Similarly, Imen & Anis (2016) conducted a study on audit report timeliness in Tunisia. The study period was from 2006 to 2013. The study used 28 Tunisian companies listed on the Tunisian Stock Exchange. Findings revealed that Board size has effect on timeliness of financial reports. The study concludes that large Board size promotes, monitoring and effective strategic decision-making.

Mbobo and Adebimpe (2016) explored the influence of audit committee attributes on the quality of financial reporting in Nigerian banks. The researchers extracted data from the audited annual reports of ten (10) selected banks for the period 2006 to 2013. Inferential statistics and regression analysis were used in analyzing the data and testing the hypotheses raised in the study. Their research came to the conclusion that specific audit committee characteristics, such as independence, meeting attendance, size, and the presence of a written constitution, have a greater impact on QFR than other characteristics. Tina and Marko (2014) investigated audit delay determinants, of Croatian listen firms of the period of four (4) years covering 2008 to 2011 adopting a pooled OLS regression analysis. Their findings indicated that leverage, profitability and audit committee existence as significant attributes of audit delay in Croatia.

Ozonigbo et al. (2016) investigated the effectiveness of audit committee on the financial reporting timeliness of companies using the Ex-post factor design and longitudinal research design. The researchers focused on the pharmaceutical industry listed in the Nigerian Stock Exchange. The statistics was adopted to analyze the data collected, correlation analysis and ordinary least square

regression. The result revealed that the audit committee effectiveness has a positive and significant effect on the financial reporting timeliness of companies listed inside the pharmaceutical industry.

The study of Eslami et al. (2015) was on the effect of corporate governance on the timeliness of financial reports of listed firms on Tehian Stock Exchange. The study period was from 2011 to 2014. The technique for data analysis was multiple regression analysis. Findings revealed that Board of Directors size has positive and significant effect on financial reporting timeliness. Empirical documentation also reveal that large audit committees will enable other sub-committees to effectively assess the work carried out by external auditors within short and stipulated time (Rahmat et al., 2009).

3. MATERIAL AND METHOD

The resign design adopted in this study is ex-post factor research design. The population of the study consists of eight (8) quoted oil and gas companies on the Nigerian Exchange Group (NEG) as at 31st December 2022, and seven (7) companies were taken as the sample size. Using purposive sampling technique. The study period is from 2012-2021. The data were collected from the annual reports and accounts of the seven (7) sampled quoted oil and gas companies on the Nigerian Exchange Group (NEG) and were analyzed using descriptive and inferential statistics and the hypotheses were tested using panel regression analysis.

For the purpose of this study, the variable used to investigate audit report lag include Board of Directors and audit committee size. The study employed the regression model, capturing the impact of Board of Directors and audit committee size on audit report lag is formulated as follows:

$$ARL = F(BOD, ACS)$$

The explicit formula of the model is stated as:

$$ARL = \beta_0 + \beta_1 BOD + \beta_1 ACS + \mu$$

ARL = Audit Report Lag

BOD = Board of Directors

ACS = Audit committee size

μ = Error (stoclastic term)

The ARL is regarded as the dependent variable while the independent variables are Board of Directors on ARL and audit committee size on ARL.

3.1 VariableDescription

Table 1: Variables measurement

Variables	Abbreviation	Measurement
Dependent:		
Audit Report Lag	ARL	Difference in the date between when a company external auditor signs a company annual audited report and the company financial statement year end date. (In days)
Independent:		
Board of Directors	BOD	The total numbers of all directors of a company including the Chairman +Vice Chairman +CEO/Managing director + Executive Directors +Non-Executive Directors or Independent Directors but excluding the company secretary
Audit committee size	ACD	The total directors and non-directors in the audit committee

Source: Researchers' compilation

4. RESULT AND DISCUSSIONS

4.1 Descriptive Analysis

Table 2: Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max	Obs.
ARL	107.58	45.22	28	239	59
BOD	8.61	2.05	4	14	59
ACD	5.74	0.95	4	8	57

Minimum value is 4 and maximum value o

The descriptive analysis of the data set is displayed in Table 2 above. Audit time lag has a mean of approximately 108datys and a standard deviation of approximately 45days, and a range of 28days to 239days. The mean for board size is approximately 9 with standard deviation of 2 while the minimum number is 4 and maximum number of 14. Audit committee size has mean of approximately 6 in number with standard deviation of 1 approximately, while the maximum number is 8.

4.1.2 Normality Test

Table 3 Shapiro-Swilk Test Result

Variables	Obs.	W	V	Z	Prob>z
ARL	59	0.898	5.461	3.656	0.000
BOD	59	0.990	0.679	-0.833	0.797
ACD	57	0.969	1.593	1.000	0.158

Source: Researcher's compilation (2023) using STATA 14.0

Table 3 above showed the test for the normality of the variables using Shapiro-swillk for audit report lag (dependent variable). The independent variables (board size and audit committee size) shows that the for-board size is 0.797 while that of audit committee sizes 0.158. the dependent variable shows p-values of 0.0000, Hence, we assumed that the variables were normally distributed and Pearson correlation was appropriate for the correlation matrix.

4.1.3. Correlation Matrix

Table 4: Pearson Correlation

	ARL	BOD	ACD
ARL	1.00		
BOD	0.25	1.00	
ACD	0.09	0.40	1.00

Source: Author's Computation (2023) using STATA 14.0

The correlation matrix that explains the connection between the dependent and independent variables is shown in Table 4 above. It demonstrated a positive correlation between audit report lag (dependent variable) and independent variables board size (0.25) and audit committee size (0.09). None of them show multicollinearity problem because no value is more than 0.80.

4.1.4 Multicollinearity Result

Table 5. Variance Inflation Factor Test

Variable	VIF	1/VIF
ACD	1.19	0.8388
BOD	1.19	0.8388
Mean VIF	1.19	

Source: Researcher's compilation (2022) using STATA 14.0

Multicollinearity among independent variables implies that they are perfectly correlated. If there exists a perfect correlation between the independent variables, the parameter coefficients will be indeterminate. In this study, the variance inflation factor test was constructed to test for multicollinearity. The variance inflation factor (VIF) explained how much of the variance of a coefficient estimate of a regressor had been inflated, as a result of collinearity with the other regressors. Essentially, VIFs above 10 are seen as a cause of concern. As observed above, the mean for the VIF's values (1.19) was less than 10 and hence, there was no multicollinearity. This also supported the result of the Pearson correlation.

4.5 Regression Results

Table 6: Panel Regression Analysis

Variable	Coefficient	Z value	Prob.
Cons.	84.166	4.48	0.000
BOD	1.099	0.48	0.633
ACD	1.775	4.84	0.043
Wald Test			1.26
Prob.			0.0335
Heteroskedascity Test: Breusch-Pagan / Cook-Weisberg:			
Chi2			2.05
Prob.			0.152
Breusch and Pagan Lagrangian Multiplier Test for Random Effects:			
Chibar2			28.43
Prob.			0.00
Hausman Test:			
Chi2			4.25
Prob.			0.12
Pesaran's test of cross-sectional independence:			
Chi2			2.01
Prob.			0.04
Wooldridge test for autocorrelation in panel data:			14.14
F stat.			0.01
Prob.			

Source: Author's compilation (2023) using STATA 14.0

{} p-value, () t/z stat., ***1%, * *Sig @5%, * sig @10%

Table 6 above shows the final result for the model estimation (Robust Standard Error for Random Effect) of the hypotheses. The study estimated pooled least square and random effect model, Brusch and Pagan Lagrangian test for random effect was used to determine the appropriate model estimation between the two. The result shows a p value of 0.00 which is less than 5% significant level this implies that random effect is appropriate. Hausman test was estimated to determine the appropriate model estimation between the fixed effect and the random effect model, Hausman test has a p value of 0.11 which implies that the Random effect Model was appropriate for the model estimation. Post estimation test were carried out among others are heteroskedascity Test using Breusch-Pagan / Cook-Weisberg and the result shows p- value of 0.04 which is lower than 5% level of significance, it implies that there is   heteroskedastic, meaning that the residuals of the model changed with time. Also, Pesaran's test of cross-sectional independence was estimated to check the cross-sectional dependency of the variable, it shows a p-value of 0.04. This implies that there is cross-sectional dependency in the model. However, Wooldridge test for autocorrelation in panel data was used to test for autocorrelation of the variable, it has a p-value of 0.01. This implies that there is auto correlation problem.

Therefore, in affording a sporous estimation, we corrected for cross- sectional dependency and auto correlation in the model. We adopted Robust Standard Error Model for Random Effect estimation for the test of hypotheses. The result of the analysis showed that board of director has coefficient of 1.099 with corresponding p-value of 0.633 which implies that company size has a positive and insignificant effect on audit report lag. However, audit committee size has positive and significant effect on audit report lag with coefficient of 1.775 and corresponding p-value of 0.043 which is significant at 5% level of significance.

The Wald test shows value of 1.26 with p-value of 0.033 this shows that the fitness of the model is good because the p-value is significant at 5% level of significance.

4.2 Test of hypothesis

4.2.1 Hypothesis One

H_{O1}: corporate governance has no significant effect on audit report lag of oil and gas companies in Nigeria.

From the result of the analysis in Table 6, audit fee has a coefficient of 1.099 with p value of 0.633 which shows that corporate governance measured by board size has positive and insignificant effect on audit report lag. This implies that board size does not determine the audit report lag. It means that an increase in the number of the board size can affect the audit time lag but not significant. Hence, we accept the null hypothesis that says that corporate governance does not have any significant effect on

audit report lag and reject our alternative hypothesis that says corporate governance has significant effect on audit report lag.

This findings is in line with the outcome of the findings of Ahnaf (2018) who also found out that there is no significant effect of board of directors on audit report lag while our result is in contrary with that of Eslami et al (2015) ,their report showed a positive and significant effect of audit committee size on audit report lag .

4.2.2 Hypothesis Two

H_{O2}: audit committee size has no significant effect on the audit report lag of oil and gas companies in Nigeria.

From the result shown in Table 6, audit committee size has coefficient of 1.775 with corresponding p value of 0.043. this implied that audit committee size has a positive and significant effect on audit report lag which implies that an increase in the number of the audit committee will improve the audit time lag. Hence, we reject our null hypothesis that says that audit committee size does not have any significant effect on audit report lag while we accept our alternative hypothesis that says that audit committee size has significant effect on audit report lag.

This is in line with the result of Ozonigho et al. (2016), they found a positive and significant effect of audit committee size on financial reporting while that of Mbobo and Adebimpe (2016) found a negative effect of audit committee size on financial reporting timelines.

CONCLUSION AND RECOMMENDATIONS

From the analysis and the result of the findings above, the study concluded that the size of audit committee has a significant role to play in achieving early audit report lag. Also, board size has positive and insignificant effect on audit report lag. This implies that board size does not determine the audit report lag. It means that an increase in the number of board size can affect the audit time lag but not significant.

Based on the findings above, the following recommendations were suggested:

1. That board size should be within a reasonable amount for the company because it does not determine the timeliness of the report.

2. **That audit committee size should be of good number and be combination of those that can perform the functions very well.**

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APPENDIX

Raw Data

YEARS	COMPANIES	ARL	BOD	ACD
2012	TotalEnergies Marketing Nigeria	86	10	6
2013	TotalEnergies Marketing Nigeria	86	10	6
2014	TotalEnergies Marketing Nigeria	83	11	6
2015	TotalEnergies Marketing Nigeria	91	11	6
2016	TotalEnergies Marketing Nigeria	74	9	6
2017	TotalEnergies Marketing Nigeria	54	9	6
2018	TotalEnergies Marketing Nigeria	88	9	6
2019	TotalEnergies Marketing Nigeria	136	9	5
2020	TotalEnergies Marketing Nigeria	84	9	5
2021	TotalEnergies Marketing Nigeria	90	8	5
2012	Mrs(Texaco Chevron)	135	8	6
2013	Mrs(Texaco Chevron)	86	8	6
2014	Mrs(Texaco Chevron)	85	7	6
2015	Mrs(Texaco Chevron)	90	8	6
2016	Mrs(Texaco Chevron)	90	8	6
2017	Mrs(Texaco Chevron)	82	9	7
2018	Mrs(Texaco Chevron)	88	10	8
2019	Mrs(Texaco Chevron)	148	8	8
2020	Mrs(Texaco Chevron)	90	7	6
2021	Mrs(Texaco Chevron)	89	7	5
2012	Japaul Gold & Ventures Plc	119	10	6
2013	Japaul Gold & Ventures Plc	119	10	6
2014	Japaul Gold & Ventures Plc	139	10	6
2015	Japaul Gold & Ventures Plc	133	6	6
2016	Japaul Gold & Ventures Plc	83	6	6
2017	Japaul Gold & Ventures Plc	88	5	6
2018	Japaul Gold & Ventures Plc	85	9	6
2019	Japaul Gold & Ventures Plc	150	7	7
2020	Japaul Gold & Ventures Plc	152	7	
2021	Japaul Gold & Ventures Plc	116		
2012	Eternaoil		5	4
2013	Eternaoil	85	5	4
2014	Eternaoil	79	5	4
2015	Eternaoil	118	4	4
2016	Eternaoil	90	8	4

2017	Eternaoil	88	8	4
2018	Eternaoil	88	8	4
2019	Eternaoil	141	8	4
2020	Eternaoil	89	10	
2021	Eternaoil	90	9	4
2012	Conoil	226	10	6
2013	Conoil	216	10	6
2014	Conoil	239	10	6
2015	Conoil	175	11	6
2016	Conoil	160	14	6
2017	Conoil	141	13	7
2018	Conoil	182	13	7
2019	Conoil	157	11	6
2020	Conoil	138	10	6
2021	Conoil	88	10	5
2012	Ardova Plc (Forte Oil)	72	9	6
2013	Ardova Plc (Forte Oil)	31	9	6
2014	Ardova Plc (Forte Oil)	49	9	6
2015	Ardova Plc (Forte Oil)	28	10	7
2016	Ardova Plc (Forte Oil)	30	10	6
2017	Ardova Plc (Forte Oil)	87	8	6
2018	Ardova Plc (Forte Oil)	85	8	6
2019	Ardova Plc (Forte Oil)	59	6	6
2020	Ardova Plc (Forte Oil)	90	6	6
2021	Ardova Plc (Forte Oil)	187	6	5

Source: Annual reports

OWNERSHIP STRUCTURE AND FINANCIAL PERFORMANCE OF SELECTED QUOTED CONSUMER GOODS FIRMS IN NIGERIA

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ABSTRACT:

This study examined the effect ownership structure has financial performance of selected quoted consumer goods firms in Nigeria over a period of twelve (12) years). This study adopted an ex-post facto longitudinal/panel research design. The population of this study consists of all the fifteen (15) consumer goods firms quoted on the Nigerian Exchange Group as at 31st December 2022. The data used in the analysis were carefully sourced from the annual reports of the selected consumer goods firms. This study utilized the Panel Ordinary Least Square (POLS) and Granger Causality techniques to analyse the data. The result of Granger Causality test revealed that within the period reviewed, ownership structure controlled by firm size has no significant effect on return on assets, return on equity, net profit margin, and gross revenue of consumer goods firms quoted on the Nigerian Exchange Group. In view of the findings, executive members on the board should not be encouraged to have large shareholding because it contributes negatively to return on assets. Again, appointment into the board should be on the bases of experience not on friendship, rendering it powerful with regard to impact on performance.

1. INTRODUCTION

The ownership structure of firms is a concept that explains the percentage of equity ownership/stockholding by each class of shareholders. It is oriented towards long-term stability of firms and guarantee of its independence. The ownership structure has been found to lead to agency problem between management/financial managers and owners of the business. This arises because of the conflict of interest in making decisions relating to governance, resource allocation, profit, survival, returns as well as accountability. Management has multiple objective functions to optimize

which might conflict with those of the shareholders. Potential conflicts of interest arise between corporate managers and dispersed shareholders when managers do not have an ownership interest in the firm (Amin & Hamdan, 2018). As such shares held by the managers in a firm help to align the interests between shareholders and managers. When the manager's interest coincides more closely with those of shareholders', the conflicts between the shareholders can entrench the controlling power over the firm's activities, leaving external or small shareholders with difficulty in controlling the actions of such ownership. Conflict of interest among shareholders and managers cannot be eliminated but can only be reduced/minimized through corporate laws, policies, control mechanism and other alternative ways to provide incentive to managers. Such incentives may be performance based compensation, direct influence, threat of retrenchment or takeover.

The correlation between ownership structure and firm performance has been an important topic and the scholars pay sustaining interest on it (Benjamin, Love, & Dandago, 2020). The debate of whether there is a relationship between ownership structure and firm performance is an on-going theme. The results of researches on the nexus between ownership structure and firm performance are quite different. The conclusion of previous studies are usually hinged to five findings: positive relationship, negative relationship, no significant relation, no significant effect, while some combine the revelation of positive, negative, no significant relationship together. In addition, the variables for arriving at a mixed result are different across countries, laws and macroeconomic environment.

1.1 Objective of the Study

In broad term, this study intends to examine the effect ownership structure has on financial performance of selected quoted consumer goods firms in Nigeria.

1.2 Research Hypothesis

H$_O$:   Ownership structure has no significant effect on the financial performance of selected quoted consumer goods firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Ownership Structure

Distribution of ownership (companies' stock) among the entity's owners (shareholders) is called the ownership structure. The ownership structure of firms is a concept that explains the percentage of equity ownership/stockholding by each class of shareholders. Yahaya and Lawal (2018) avers that

ownership structure remains an important factor employed in structuring the governance systems of corporate entities. In fact, ownership structure clearly determines amongst others, the voting capacity of holders of equity shares in any given company. By extension, decisions at the corporate level/board meetings are sometimes influenced by their respective ownership structure, thus making it a significant corporate governance mechanism that influences firms' behaviour (Fan & Leung, 2020) and by extension, the company's performance – positively or negatively (Nnabuife, Igomu, Apochi, Adah & Igomu, 2017; Amin & Hamdan, 2018).

2.1.2 Managerial Ownership

Managerial ownership refers to an ownership fraction or stake in a firm that is held by managers (Ibrahim, 2012). Managerial ownership is not only meant to increase the equity of the organization but also to serve as incentives to managers to align managers' interests with those of the interests of the organization. Managerial ownership is measured by natural logarithm of equity held by managers as shareholders in a firm.

2.1.3 Institutional Ownership

Institutional ownership refers to an ownership fraction or stake in a firm that is held by large financial organizations, pension funds or endowments. Institutions generally purchase large blocks of a firm's outstanding shares and can exert considerable influence upon its management (Ironkwe, & Emefe, 2019). Therefore, institutional shareholders are usually professionals and they normally use their expertise in monitoring the management in ensuring that their interests align with those of the organization's interests. Institutional ownership is measured by natural logarithm of equity held by various institutions as investors in the firm.

2.1.4 Ownership Concentration

Ownership concentration refers to an ownership fraction or stake in a firm that is held by shareholders with the controlling interest or with large stake. Ownership concentration affords the shareholders the motivation and ability to monitor and control management decisions (Amin & Hamdan, 2018). Therefore, concentrated shareholders use their large stake in reducing conflicts between managers and the organization by being more proactive in monitoring and protecting their investments. Ownership concentration is measured by natural logarithm of equity held by block holders as investors in the firm.

2.1.5 Family Ownership

Family ownership is prevalent in most countries around the world. In the US, families present one-third of the S&P 500 and account for 18% of outstanding equity (Alipour & Amjadi, 2020). Families also have a strong incentive to decrease agency costs and increase the firm value. Concentrated shareholders have a strong economic incentive to monitor managers and decrease agency costs (Demsetz & Lehn, 2019). Since families usually invest most of their private wealth in the company and it is not well-diversified, families are more concerned with the firm's survival and have a strong incentive to monitor management closely. Monitoring costs tend to be lower in companies controlled by family than by non-family.

2.1.6 Financial Performance

Financial performance is used to describe the state of affairs of a firm. In analysing financial performance, emphasis should be made in formulating an adequate description of the concept of a financial performance which uncovers the different dimensions upon which firms financial performance should be evaluated. In terms of measurement, several scholars measures financial performance differently. Demstz and Lehn (2019), measured financial performance as accounting profit rate, Uadiale (2010) measured financial performance by return on equity as the proportion of profit after tax to issued share capital and return on capital employed (ROCE) plus reserves. Kechi (2011) measured financial performance by return on assets (ROA) and profit margin (PM), Fazlzadeh et al. (2011) measured financial performance as the net income to total assets and ordinary income to total assets. Uwaloma and Olamide (2012) measured financial performance as Return on Equity (ROE).

2.1.7 Ownership Structure and Firm Performance

One of the most important trademarks of the modern corporation is the separation of ownership and control. Modern corporations are typically managed by professional executives who own only a small fraction of the shares. The link between ownership structure and performance has been the subject of an important and ongoing debate in the corporate finance literature (Demsetz & Lehn, 2019). When owners of a privately held company decide to sell shares, and when shareholders of a publicly held corporation agree to a new secondary distribution, they are, in effect, deciding to alter the ownership structure of their firms and, with high probability, to make that structure more diffuse.

2.1.8 Ownership Concentration and Firm Performance

Ownership concentration enhances the ability of dominant shareholders in monitoring the managers. It aligns the interests of dominant shareholder with those of minority shareholders if his control rights are equal to his cash flow rights (Bennedsen & Nielsen, 2010). It ensures that dominant shareholder will not expropriate firm resources because any discount in price may cost him more than his private benefits (Bozec & Laurin, 2008).

2.1.9 Institutional Ownership and Firm Performance

Theoretical concerns regarding the role of institutional shareholders in corporate governance are inspired by discussions of institutional investors' activism. It is suggested that institutional investors are the most effective device in supervision of management activities. As the minority shareholders are not part of the board, they feel satisfaction if institutional investors are present in the board thus helps in mitigating agency problems of ownership dispersion (Cornett, 2008). Institutional investors are highly activated by performing trustee activities to attain higher investment performance. Depending upon contribution and power of the institutional shareholders, they may cause growing stock liquidity and enhanced market valuation which signals other investors about the higher performance of firm (Kyereboah-Coleman, 2007). Moreover, institutional ownership may play an effective role in moderating the entrenched behaviour of ultimate controller in group firms and therefore is expected to have a strong positive relationship with firm performance.

3. MATERIAL AND METHOD

This study adopted an ex-post facto longitudinal/panel research design. The combination of time series with cross-section data made possible by the use of panel data regression technique, usually improves the degree of freedom and quantity of data which may not be possible when using only one of them. The population of this study consists of all the fifteen (15) consumer goods firms quoted on the Nigerian Exchange Group as at 31st December, 2022. A purposive/judgement sampling technique which is a type of non-probability sampling technique was utilized in selecting the sample size of ten (10) out of the fifteen (15) consumer goods firms which includes Cadbury, Dangsugar, Flourmill, Guinness, Honyflour, Unilever, Nigerian Breweries, Nestle, Northern Nigeria Flour Mill, and PZ. The data used in the analysis were secondary in nature and extracted from the annual reports of the selected consumer goods firms quoted on the Nigerian Exchange Group from 2011 to 2022, and which have operated on the exchange for a least period of ten years. All the data are on annual basis.

The specification of the model involves the determination of the dependent and independent variables included in a model. It expresses the mathematical relationship that exists between the dependent and the independent or explanatory variables. This research adopted the model of Coleman and Nicholas-Biekpe (2006) with slight modifications. In the model, the researchers expressed performance as a function of corporate governance (measured by ownership structure, board composition, CEO duality and CEO tenure of office). They also included two control variables namely firm size and debt structure. The original model is stated as follows:

$$Y_{i,t} = \beta_0 + \beta_1 G_{i,t} + \beta_2 BSE_{i,t} + \beta_3 BDT_{i,t} + \varepsilon_{i,t} \quad --------------3.1$$

Where:

$Y_{i,t}$ represents firm performance variables which are: return on capital employed, earnings per share, return on assets and return on equity at time t.

$G_{i,t}$ is a vector of corporate governance variables which include: board size, board composition which is defined as the ratio of outside directors to total number of directors, a dummy variable (CEO) to capture if the board chairman is the same as the CEO or otherwise.

In order to determine the effect of ownership structure on the financial performance indicators of consumers' goods firms, the above model is therefore modified. In doing this, this research work developed four models which are stated as follows:

$$ROA_{it} = f(OWNS_t, FMS_t) \quad --------------------3.2$$
$$ROE_{it} = f(OWNS_t, FMS_t) \quad -------------------3.3$$
$$NPM_{it} = f(OWNS_t, FMS_t) \quad -------------------3.4$$
$$GRV_{it} = f(OWNS_t, FMS_t) \quad --------------------3.5$$

These models were represented in a log-linear econometric format to obtain the coefficients of the elasticity of the variables, while reducing the possible impact that any outlier may have. In the log-linear regression, the coefficients are easy to interpret as the problem of different units have been solved and the interpretation becomes easy in elasticity terms. Thus:

Model 1

$$LogROA_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \quad -----------3.6$$

Model 2

$$LogROE_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \quad ----------3.7$$

Model 3

$$LogNPM_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \quad -----------3.8$$

Model 4

$$LogGRV_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \;-----------3.9$$

Where:

ROA = Return on Asset

ROE = Return on Equity

NPM = Net Profit Margin

GRV = Gross Revenue

OWNS = Ownership Structure

FMS = Firm Size

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

The mean data of the selected consumer goods firms as computed by E-views 10.0 software via the criteria of *Mean plus SD Bound* are condensed in this sub-section. The annual reports of the consumer goods firms spanning from 2011 to 2022 provided the data used in the analysis. The average data return on assets, return on equity, net profit margin, gross revenue, ownership structure, and firms' size are presented in Table 1.

Table 1: Return on Assets, Return on Equity, Net Profit Margin, Gross Revenue, Ownership Structure and Firms Size from 2011 to 2022

Year	Return on Assets (%)	Return on Equity (%)	Net Profit Margin (%)	Gross Revenue (N'000)	Ownership Structure (%)	Firms' Size (N'000)
2011	0.273	0.496	0.270	1,370,000	0.040	4,170,000
2012	0.247	0.458	0.340	1,520,000	0.040	5,560,000
2013	0.194	0.360	0.320	1,540,000	0.040	5,590,000
2014	0.177	0.345	0.280	1,590,000	0.040	7,720,000
2015	0.183	0.356	0.350	1,660,000	0.040	9,490,000
2016	0.163	0.329	0.260	1,490,000	0.040	9,800,000
2017	0.029	0.133	0.350	1,560,000	0.040	11,200,000
2018	0.067	0.173	-0.750	2,500,000	0.090	13,300,000
2019	0.066	0.164	0.490	2,320,000	0.950	13,900,000
2020	0.034	0.157	-0.130	2,140,000	0.190	14,200,000
2021	0.001	0.184	0.490	1,830,000	0.090	15,700,000
2022	0.040	0.241	0.480	2,430,000	0.150	18,300,000

Source: Annual Reports, 2011 to 2022; and output data from E-views 10.0.

4.1.1 Descriptive Statistics of Data

Table 2 shows the descriptive statistics of the variables. It shows the total number of observations, mean, median, maximum, minimum, standard deviation and sum of mean deviation. The mean values of the independent variables: ROA, ROE, NPM, GRV, OWNS, and FMS are 0.122727, 0.282984, 0.229430, 1829818, 0.145484, and 1.08E+0 respectively. The median of the study variable are 0.08786, 0.17585, 0.36925, 129216, 0.00457, and 701672 for ROA, ROE, NPM, GRV, OWNS, and FMS respectively. The maximum values of the series are 0.524030 for ROA, 1.872810 for ROE, 2.283530 for NPM, 71123824 for GRV, 7.661670 for OWNS, and 3.80E+08 for FMS, while the minimum values are -0.173790, -0.187870, -12.85960, -12832256, 1.00E-05, and 1719101 ROA, ROE, NPM, GRV, OWNS, and FMS respectively. The standard deviation of the variables are 0.132664 for ROA, 0.327165 for ROE, 1.318028 for NPM, 1862652 for GRV, 0.721331 for OWNS, and 1.02E+0 for FMS. The measure of asymmetry of the distribution of the series around its mean that is, skewness of all the variables are positive with the exception of NPM suggesting that all the variables in the model are not negatively skewed towards normality. The Kurtosis that measures the peakedness of the distribution of the variables are more than 3.0. This evidences that all the variables are leptokurtic in nature. The p-values of the Jarque-Bera for all the variables are significant at 5% level meaning that all the variables are normally distributed and free from any outlier that may affect the regression output.

Table 2: Descriptive Statistics of Data

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	P-value	Obs
ROA	0.122727	0.08786	0.524030	-0.173790	0.132664	0.750470	3.636184	13.28776	0.0013	120
ROE	0.282984	0.17585	1.872810	-0.187870	0.327165	1.802084	7.411940	162.2762	0.0000	120
NPM	0.229430	0.36925	2.283530	-12.85960	1.318028	-8.320037	82.71596	33157.63	0.0000	120
GRV	1829818	129216	71123824	-12832256	1862652	0.991881	3.101177	19.72774	0.0000	120
OWNS	0.145484	0.00457	7.661670	1.00E-05	0.721331	9.597138	99.95177	48840.33	0.0000	120
FMS	1.08E+0	701672	3.80E+08	1719101	1.02E+0	1.250645	3.488246	32.47418	0.0000	120

Source: Output data from E-views 10.0

To determine the effect of ownership structure on financial performance of quoted consumer goods firm, this study applied a panel data analysis.

4.1.2 Panel Co-integration Test

The co-integration relationship between the variables were estimated using the Kao's and Pedroni residual co-integration tests as it applies to panel data.

4.1.3 Kao Residual Co-integration Test

The structural criteria for estimation the Kao panel Co-integration test is based on Engle-Granger. Kao (1999) noted that the null hypothesis of no co-integration for panel data exists in two test. The first is a Dickey-Fuller types test while the other is an Argumented Dickey-Fuller type test. Table 3 depicts the Kao's co-integration test for ownership structure and financial performance of quoted consumer goods firms in Nigeria. The p-values of the t-statistics for models 1 (return on assets) and model 3 (net profit margin) are significant at 5% level of significance, which is the rejection of the null hypothesis of no co-integration for two financial performance indices (return on assets and net profit margin) of selected consumer goods firms and ownership structure. Put differently, return on assets and net profit margin are related in long run with ownership structure and firm size selected consumer goods firms, while return on equity and gross revenue are not related in the long run with financial performance of consumer goods firms in Nigeria within the period studied.

Table 3: Kao Residual Co-integration Test

Models Estimated	Argumented Dickey-Fuller	
	t-Statistic	**Prob.**
ROA → OWNS + FMS	-1.839013	0.0330
ROE → OWNS + FMS	0.694021	0.2438
NPM → OWNS + FMS	-4.211893	0.0000
GRV → OWNS + FMS	0.108787	0.4567

Source: Computer output data using E-views 10.0

Notes: The ADF is the residual-based ADF statistic. The null hypothesis is no co-integration. (*) and (**) indicate that the estimated parameters are significant at the 1% and 5% level respectively.

4.1.4 Panel OLS Analysis of Ownership Structure and Financial Performance

This analysis of the panel OLS relationship between ownership structure and financial performance of the selected consumer goods firms in Nigeria was analysed. The pooled OLS, fixed and random effect were the estimation approach used. The fixed and random effect estimations, period fixed and random effect specification were performed. This is based on the fact that all the consumer goods firms operate in the same country with no difference in industry attributed specific conditions and ratios. The results of the panel OLS estimations for the models are detailed in Tables 4 – 7. The

global and relative utility of the models were adopted in interpreting the output of the regression estimates.

4.1.5 Return on Assets and Ownership Structure

The Hausman test in Table 4 suggests that the random effect estimation is preferred to fixed effect due to insignificant p-value of the Chi-square. There is an insignificant negative relationship between return on assets and ownership structure, whereas there is an insignificant relationship between return on assets and firms' size. A percentage increase in ownership structure will lead to 0.81%, depreciation in return on assets of selected consumer goods firms. On the other hand, a unit increase in firms' size will lead to a 9.36 factor appreciation in return on assets. If ownership structure and firms' size are held constant, return on assets would be estimated to be 27.34%.

Table 4: Panel OLS of Ownership Structure and Financial Performance: ROA

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
C	0.016300	0.1907	0.019434	0.0721	0.018049	0.2734
OWNS	-0.005738	0.5519	-0.008867	0.3055	-0.008136	0.3412
FMS	2.96E-11	0.6698	1.23E-10	0.0695	9.36E-11	0.1485
ROA(-1)	0.693940	0.0000	0.591346	0.0000	0.627105	0.0000
R-squared	0.632244		0.762660		0.576763	
Adjusted R-squared	0.621836		0.730520		0.564784	
S.E. of regression	0.073227		0.061815		0.061974	
Sum squared resid	0.568392		0.366826		0.407116	
Log likelihood	133.5151		157.6009			
F-statistic	60.74493		23.72941		48.15020	
Prob(F-statistic)	0.000000		0.000000		0.000000	
Durbin-Watson stat	2.254061		2.089556		2.133111	
Hausman Specification Test						
	Chi-Sq. Statistic	3.544144				
	P-value	0.315100				

Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

The adjusted R-square value of 0.576763is an insinuation that only 57.68% changes in return on assets was as a result of joint variation in ownership structure and firms' size. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the

aforementioned magnitude of changes in return on assets was significantly (less than 0.05) explained by ownership structure and firms' size. The traditional Durbin Watson test of autocorrelation showed a value of 2.12 which implies that there is no autocorrelation in the model.

4.1.6 Return on Equity and Ownership Structure

As can be seen in Table 5, ownership structure has insignificant negative relationship with return on equity based on the result of the Hausman test which indicated the suitability of the random effect estimation. On the other hand, there is positive but insignificant relationship between ownership structure and return on equity. A percentage increase in ownership structure leads to 1.487% depreciation in return on equity of selected consumer goods firms. Holding ownership structure and firms' size constant would result in 1.75% decrease in return on equity. From the adjusted R-square, 76.30% variation in return on equity of selected consumer goods firms was attributed to ownership structure and firms' size. There is no need to worry about the significant of this variation as the p-value (0.00) and the F-statistic (113.60) showed that ownership structure and firms' size were significant in explaining the changes in return on equity. The Durbin Watson is 1.62 shows no element of autocorrelation in the model.

Table 5: Panel OLS of Ownership Structure and Financial Performance: ROE

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
C	-0.016988	0.5040	-0.017892	0.4663	-0.017539	0.5511
OWNS	-0.014864	0.4687	-0.014860	0.4770	-0.014870	0.4652
FMS	2.13E-10	0.1539	1.19E-10	0.4572	1.70E-10	0.2625
ROE(-1)	0.901829	0.0000	0.942342	0.0000	0.920889	0.0000
R-squared	0.762759		0.801317		0.769551	
Adjusted R-squared	0.756044		0.774412		0.763029	
S.E. of regression	0.155025		0.149075		0.147868	
Sum squared resid	2.547470		2.133437		2.317693	
Log likelihood	51.01265		60.76780			
F-statistic	113.6009		29.78321		117.9905	
Prob(F-statistic)	0.000000		0.000000		0.000000	
Durbin-Watson stat	1.670058		1.599298		1.627457	
Hausman Specification Test						
	Chi-Sq. Statistic	1.291121				
	P-value	0.731200				

Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

4.1.7 Net Profit Margin and Ownership Structure

The result in Table 6 shows the preference of the random effect estimation which envisages that ownership structure and firms' size have insignificant positive relationship with net profit margin of selected consumer goods firms in Nigeria. A unit increase in ownership structure and firms' size result in 0.0039 and 2.260 factors appreciation in net profit margin of selected consumer goods firms. When ownership structure and firms' size are held constant, net profit margin would be valued at -00157. The result in Table 4.11 shows the adjusted R-square value to be 0.014014, an insinuation that 0.14% negative change in net profit margin was as a result of variation in ownership structure and firms' size. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the aforementioned magnitude of changes in net profit margin was significantly (less than 0.05) explained by ownership structure and firms' size. The traditional Durbin Watson test of autocorrelation showed a value of 1.94, which is still within the range of no autocorrelation in the model.

Table 6: Panel OLS of Ownership Structure and Financial Performance: NPM

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
C	-0.015700	0.9286	-0.079515	0.6698	-0.015700	0.9293
OWNS	0.003946	0.9816	-0.028241	0.8776	0.003946	0.9818
FMS	2.26E-09	0.0647	2.89E-09	0.0327	2.26E-09	0.0672
R-squared	0.030585		0.104965		0.030585	
Adjusted R-squared	0.014014		-0.004803		0.014014	
S.E. of regression	1.308760		1.321189		1.308760	
Sum squared resid	200.4037		185.0273		200.4037	
Log likelihood	-201.0431		-196.2533			
F-statistic	1.845665		0.956242		1.845665	
Prob(F-statistic)	0.162488		0.499009		0.162488	
Durbin-Watson stat	1.941230		1.890200		1.941230	
	Hausman Specification Test					
	Chi-Sq. Statistic		1.576668			
	P-value		0.454600			

Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

4.1.8 Gross Revenue and Ownership Structure

As can be seen in Table 7, ownership structure has significant negative relationship with gross revenue of consumer goods firms as dispelled by the fixed effect estimation, while there is a positive insignificant relationship between firms' size and gross revenue of selected consumer goods firms. A percentage increase in ownership structure leads to N2,556,863 depreciation in gross revenue of selected consumer goods firms. Holding ownership structure and firms' size constant would result in N1,491,084 million appreciation in gross revenue. From the adjusted R-square, 83.42% variation in gross revenue was attributed to ownership structure and firms' size. There is no need to worry about the significant of this variation as the p-value (0.00) and the F-statistic (43.17) vehemently showed that ownership structure and firms' size was significant in explaining the changes in gross revenue. The Durbin Watson of 2.25 showed that there is no element of autocorrelation in the model.

Table 7: Panel OLS of Ownership Structure and Financial Performance: GRV

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	1408877.	0.2368	1491084.	0.2071	1411532.	0.2239
OWNS	-2646223.	0.0137	-2556863.	0.0194	-2642498.	0.0106
FMS	0.017064	0.0751	0.011783	0.2367	0.016785	0.0695
GRV(-1)	0.887693	0.0000	0.916322	0.0000	0.889306	0.0000
R-squared	0.824908		0.853948		0.826219	
Adjusted R-squared	0.819952		0.834170		0.821301	
S.E. of regression	8073721.		7748397.		8033606.	
Sum squared resid	6.91E+15		5.76E+15		6.84E+15	
Log likelihood	-1903.500		-1893.526			
F-statistic	166.4649		43.17678		167.9878	
Prob(F-statistic)	0.000000		0.000000		0.000000	
Durbin-Watson stat	2.254668		2.324278		2.258352	
	Hausman Specification Test					
	Chi-Sq. Statistic	10.947099				
	P-value	0.0120000				

Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

4.1.9 Granger Causality Effect Result

To examine the effect of ownership structure and firms' size on financial performance (return on assets, return on equity, net profit margin, and gross revenue) of selected consumer goods firms, the granger causality test was utilized. The idea of using granger causality over the panel ordinary least square regression is premises on the fact that the granger causality test is structured to depict the ability of one variable to predict another. This is unlike the OLS that only reveals relationship but cannot unveil the predicting power of one variable on the other. Tables 8 – 11 reveal the results of the granger causality test. As can be seen in Tables 8 – 11 demonstrate that ownership structure controlled by firms' size have no significant effect on financial performance measured by return on assets, return on equity, net profit margin, and gross revenue as causality does not run from ownership structure and firms' size to return on assets, return on equity, net profit margin, and gross revenue at a significant level of 5%.

Table 8: Granger Causality Test on Ownership Structure and ROA

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
OWNS does not Granger Cause ROA	110	0.01077	0.9175	No Causality
ROA does not Granger Cause OWNS		0.87044	0.3529	No Causality
FMS does not Granger Cause ROA	110	0.00309	0.9558	No Causality
ROA does not Granger Cause FMS		0.91332	0.3414	No Causality

Source: Output Data using E-views 10.0

Table 9: Granger Causality Test on Ownership Structure and ROE

Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**	**Remarks**
OWNS does not Granger Cause ROE	110	0.00187	0.9656	No Causality
ROE does not Granger Cause OWNS		1.09684	0.2973	No Causality
FMS does not Granger Cause ROE	110	1.04164	0.3097	No Causality
ROE does not Granger Cause FMS		3.15083	0.0787	No Causality

Source: Output Data using E-views 10.0

Table 10: Granger Causality Test on Ownership Structure and NPM

Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**	**Remarks**
OWNS does not Granger Cause NPM	110	0.12820	0.7210	No Causality
NPM does not Granger Cause OWNS		0.13312	0.7159	No Causality
FMS does not Granger Cause NPM	110	2.28602	0.1335	No Causality
NPM does not Granger Cause FMS		0.33368	0.5647	No Causality

Source: Output Data using E-views 10.0

Table 11: Granger Causality Test on Ownership Structure and GRV

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
OWNS does not Granger Cause GRV	110	0.10912	0.7418	No Causality
GRV does not Granger Cause OWNS		1.92488	0.1682	No Causality
FMS does not Granger Cause GRV	110	0.54381	0.4625	No Causality
GRV does not Granger Cause FMS		3.62834	0.0595	No Causality

Source: Output Data using E-views 10.0

4.2 Test of Hypothesis

4.2.1 Decision Criteria: If the p-value of F-statistic in granger causality test is less than 0.05, the null hypothesis is rejected. On the other hand, if the p-value of F-statistic in granger causality test is greater than 0.05, the null hypothesis is accepted.

4.2.2 Restatement of Research Hypothesis

Ownership structure has no significant effect on the financial performance of selected quoted consumer goods firms in Nigeria.

Financial Performance Variables:

Variable 1; ROA = Return on Asset

Variable 2; ROE = Return on Equity

Variable 3; NPM = Net Profit Margin

Variable 4; GRV = Gross Revenue

Table 12: Test of Hypothesis

Hypotheses	Estimated Equation	F-Statistic	P-Value	Decision
Variable 1	ROA $\rightarrow$ OWNS + FMS	0.01077	0.91750	Accept H_0 & Reject H_1
Variable 2	ROE $\rightarrow$ OWNS + FMS	0.00187	0.96560	Accept H_0 & Reject H_1
Variable 3	NPM $\rightarrow$ OWNS + FMS	0.12820	0.72100	Accept H_0 & Reject H_1
Variable 4	GRV $\rightarrow$ OWNS + FMS	0.10912	0.74180	Accept H_0 & Reject H_1

Source: Granger Causality Output from Table 4.13 – 4.16

From the hypothesis result testing in Table 12, all the financial performance variables were accepted as the p-values (0.91750), (0.96560), (0.72100), and (0.74180) respectively in the Granger Causality

output in Table 12 are higher than 0.05 (insignificant at 5% level of significance) which is in line the hypothesis decision rule, hence the conclusion that ownership structure has no significant effect on the financial performance of selected quoted consumer goods firms in Nigeria.

The Kao co-integration test in Table 3 divulges that return on assets and net profit margin are related in long run with ownership structure and firm size of selected consumer goods firms, while return on equity and gross revenue are not related in the long run with financial performance of consumer goods firms in Nigeria within the period studied. This may be attributed to the different technology adopted by firms in the production process coupled with variation in the macroeconomic fundamentals, especially the deteriorating nature of the Naira against other currency of the world such as the US Dollar, Euros, and British pounds among others.

On the relationship between ownership structure and return on assets, Table 4 shows that there is an insignificant negative relationship between return on assets and ownership structure, whereas there is an insignificant relationship between return on assets and firms' size. This is in line with the previous studies of Jinadu et.al. (2018), Reem, Allam, and Wajeeh (2015), and Mwathi (2009). However, it disagrees with the works of Yahaya and Lawal (2018), Abdul (2016), Davis (2014), Amran and Ahmad (2013), Pathirajawasam and Wickremasinha (2012), Gugong, Arugu and Dandago (2014) on the positive association between ownership structure and return on assets of firms studied. On the insignificant effect of ownership structure on return on assets as shown it table 8 divulges that ownership structure has no significant effect on return on assets. This is in tandem with Jinadu et al. (2018) and Alabdullah (2016). On the hand, it refutes the results of Ukolobi and Jeroh (2020), Khadash and Washali (2019), Yahaya and Lawal (2018), Abdul (2016), Reem, Allam, and Wajeeh (2015), and Davis (2014) on the significant effect of ownership structure on return on assets.

Table 5 showcase that ownership structure has insignificant negative relationship with return on equity. This may be hinged to the equity contributions towards the growth of the firms. This result supports the works of Abosede and Kajola (2011). Similarly, it did not accept the findings of Yahaya and Lawal (2018), Saseela and Thirunavukkarasu (2017), Amran and Ahmad (2013), Mirza and Javed (2013), Gugong, Arugu and Dandago (2014) on the positive association between ownership concentration and return on equity of selected firms. With regards to the granger causality output in Table 9, return on equity was found to have not been significantly affected by ownership structure within the period studied which is in consonance with Ironkwe and Emefe (2019) and Alabdullah (2016). Nevertheless, it did not affirm the results of Ukolobi and Jeroh (2020), Panda and Bag (2019), Yahaya and Lawal (2018), Saseela and Thirunavukkarasu (2017),

and Mirza and Javed (2013) on the significant effect of ownership structure on return on equity of firms.

Table 6 points towards insignificant relationship between ownership structure and net profit margin. This may be attributed to relatively low turnover of consumer goods firms in Nigeria when compared with their counterparts in developed countries of the world such as USA, United Kingdom, Germany, and Japan among others. The granger causality test in Table 10 could not attribute a significant effect of ownership structure on net profit margin and this confirms the study of Yahaya and Lawal (2018). On the issue of gross revenue, Table 7 provides evidence of an insignificant negative relationship between gross revenue and ownership with is linking to the work of Ukolobi and Jeroh (2020). Firms' size was found to have no significant effect on the four variables of performance (return on assets, return on equity, net profit margin, and gross revenue). This is in affirmation to Abdul (2016) that total assets of the firms do not guarantee improve gross revenue as firms may face other macroeconomic uncertainties that may affect their net earnings.

CONCLUSION AND RECOMMENDATIONS

The effect of ownership structure on firm performance cannot be ignored as it has received considerable attention by scholars. Thus, this study established the effect of ownership structure on financial performance of consumer goods firms quoted on the Nigeria Exchange Group from 2011 to 2022. Data analysis was done with the aid of granger causality technique amidst peculiarity of our business environment, the study concluded and asserts that within the period reviewed, ownership structure controlled by firm size has no significant effect on return on assets, return on equity, net profit margin, and gross revenue of consumer goods firms quoted on the Nigerian Stock Exchange.

In view of the findings of this study, the following recommendations beneficial to stakeholders are put forward:

1. It is revealed that higher ownership structure is related to lower performance. Hence, executive members on the board should not be encouraged to have large shareholding because it contributes negatively to return on assets. Again, appointment into the board should be on the bases of experience not on friendship, rendering it powerful with regard to impact on performance.

2. Executive members should not be encourage to earn more stake in the ownership structure of the firms as it is negatively related with return on equity. As board members ownership increases, they are less likely to transfer the firm resources away from value maximization.

3. Shareholders are encourage to inject more equity in the firms through investment in physical assets via mechanised factory equipments, product storage/delivery facilities will enhance availability and efficiency in service delivery which in turn, lead to increased net profit margin.

4. Shareholders of consumer goods firms should invest in human capital to improve funds' coping ability and resilience during periods of extreme stress. Investment in technological development and human capital may increase the speed and quality of human beings, which can lead to increased gross revenue.

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NEXUS BETWEEN SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE: AN EVALUATION OF SELECTED LISTED OIL AND GAS COMPANIES IN NIGERIA

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ABSTRACT:

This study examined the effect of sustainability reporting on the performance of sampled Oil and Gas firms in Nigeria. Performance proxied by return on assets (ROA) was the dependent variable while sustainability reporting surrogated by economic reporting, environmental reporting and social reporting. The major analysis to achieve the specific objectives was performed using the generalized least square (GLS) regression techniques. The significance of the association and relationships was at 5% confidence level. Z-test statistics was used to test the significance of the relationships. The results of the model revealed that the explanatory variables account for as low as 69.51% of the overall variation in the financial performance of sampled Oil and Gas firms in Nigeria. The findings shows that economic reporting and environmental reporting has a significant effect on the financial performance of sampled oil and gas firms in Nigerian while social reporting has no significant effect on the financial performance of sampled Oil and Gas firms in Nigeria. The study recommends among others that, listed oil and companies in Nigeria should intensify economic dimension of sustainability reporting as this could lead to increased performance in addition to satisfying their information needs and assisting them to hold firms to account for not only economic reporting but also environmental and social reporting as its impacts them.

1. INTRODUCTION

Global developments in businesses, especially in relation to sustainable development have underscored the importance of companies to integrate information on sustainability issues into their corporate reporting mechanism. This is also informed by the fact that the accountability aspect of

financial reporting of companies will not be complete without incorporating sustainability reporting in the annual financial reports, hence the need for the inclusion of sustainability disclosures in corporate annual reports to balance the needs of stakeholders. In accounting disclosure literature, sustainability reporting has to do with the disclosure and communication of environmental, social, and governance (ESG) goals as well as a company's progress towards these goals (Owolabi & Okulenu, 2020). Sustainability reporting refers to the disclosure, whether voluntary, solicited, or required, of non-financial performance information to outsiders of the organization (Erkens, Paugam & Stolowy, 2015). In the broadest sense, sustainability reporting deals with information concerning environmental, social, economic and governance issues. The introduction of these non-financial information in published reports is seen as a step forward in corporate communication and considered as an effective way to increase corporate engagement and transparency (Moravcikova, Stefanikova & Rypakova, 2015).

Sustainability reporting has become necessary to manage and report sustainability issues as the traditional financial reports are insufficient to provide a complete description of the economic, social and environmental impacts of an organization's operation (Guthrie & Farneti, 2008). Listed firms are required by law to prepare conventional financial reports to investors, potential investors, shareholders and other stakeholders to show their financial performance at the end of an accounting period at the expense of the firm. Over the years, this disclosure has been basically financial in nature but nowadays, stakeholders expect all organizations to be more detailed on how they treat: the environment, employees, host communities and handle their corporate governance issues. Sustainability reporting has been a rising concern in today's business era as it does not only satisfy stakeholders informational needs about the economic, social and environmental activities of the firm, but also works as a competitive advantage for the company in question. Thereby, in today's business world where companies are buried in neck to neck competition, it is highly important for firms to draw sustainability reports not only to track down their economic, social and environmental performances, but also to attract more customers so as to survive in the market. This is because firms that undertake sustainability reporting are considered being transparent and thus capable of attracting investors (Oncioiu *et al*. 2020).

There are a variety of reasons that companies choose to produce sustainability reports, but at their core they are intended to be "vessels of transparency and accountability" Often, they are also intended to improve internal processes, engage stakeholders and persuade investors. Improved disclosure of non-financial information can have other benefits for reporting companies. In particular, the adoption of

sustainability reporting has been found to have a positive impact on company performance and value. Organization for Economic Cooperation and Development (OECD) suggests that companies showing sustainable performance on environmental, social and governance (ESG) criteria and communicating effectively about them seem to enjoy better financial performance (OECD, 2012 & Baron, 2014). These companies generally benefit from a more diversified investor base, for example through their inclusion in actively managed investment portfolios or sustainability indices (European Commission, 2019). There are a variety of reasons that companies choose to produce sustainability reports, but at their core they are intended to be vessels of transparency and accountability. Often, they are also intended to improve internal processes, engage stakeholders and persuade investors. Improved disclosure of non-financial information can have other benefits for reporting companies. In particular, the adoption of sustainability reporting has been found to have a positive impact on company performance and value. OECD suggests that companies showing sustainable performance on environmental, social and governance (ESG) criteria and communicating effectively about them seem to enjoy better financial performance (OECD, 2012 & Baron, 2014). These companies generally benefit from a more diversified investor base, for example through their inclusion in actively managed investment portfolios or sustainability indices (European Commission, 2019).

This study is motivated by the need to adhere to the call by Haln and Kuhnen (2013) for a study to be conducted on the topic to cover all the themes of sustainability (economic, social and environmental) since they concluded in their study that most studies on this topic covers only one theme of sustainability which often environmental. This study therefore intends to test three sustainability variables (environmental, economic and social) hitherto not frequently tested against performance by previous studies. For instance, Chiamogu and Okoye, (2020); Omesi and Berembo, (2020); Etale and Otuya, (2020); Nasiru et al. (2020); Syder et al. (2020); Owolabi and Okulenu, (2020); Erhirhie and Ekwueme, (2019). Most of these studies have shared similar focus with our present study. However, none of these existing studies have examined sustainability reporting and performance of listed oil and gas firms in Nigeria using variables such as economic reporting, environmental reporting and social reporting to the best of our knowledge. These studies have either adopted the qualitative approach or binary approach of measurement which are often considered unrealistic in accounting research.

Also, most of the recent studies carried out in the area of sustainability reporting were undertaken using samples from advanced economies with sophisticated sustainability reporting framework with a handful of these study focusing on developing economies like Nigeria and the oil and gas industry

in particular. This study will focus on listed oil and gas companies' firms drawn from the Nigeria stock exchange which has hitherto not being considered by previous literature. It is against this backdrop that this study is set to evaluate the effect of sustainability reporting on the financial performance of listed oil and gas companies in Nigeria.

1.1 Objectives of the Study

The broad objective of this study is to investigate the effect of sustainability reporting on financial performance of listed oil and gas companies in Nigeria. The specific objectives of the research are to:

i. assess the effect of Economic reporting on the financial performance of listed oil and gas companies in Nigeria.

ii. determine the effect of Environmental reporting on the financial performance of listed oil and gas companies in Nigeria.

iii. investigate the effect of social reporting on the financial performance of listed oil and gas companies in Nigeria.

1.2 Research Hypotheses

In order to test the effect of sustainability reporting on financial performance of listed oil and gas companies in Nigeria, the following hypothesis are formulated in their null form:

Ho_1:   Economic reporting has no significant effect on the financial performance of listed oil and gas companies in Nigeria.

Ho_2:   Environmental reporting has no significant effect on the financial performance of listed oil and gas companies in Nigeria.

Ho_3:   Social reporting has no significant effect on the financial performance of listed oil and gas companies in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Sustainability Economic Reporting

According to GRI (2011), economic reporting is the process by which a firm communicates to its variety of stakeholders' information regarding its range of economic activities on wages and benefits, labour productivity, job creation, research and development and investment.

2.1.2 Environmental Reporting

One of the key components of sustainability reporting is environmental reporting. Makori and Jagongo (2013) sees environmental reporting as the ability of a firm to provide accurate information in the financial statements regarding the estimated social cost occasioned by the production externalities on the environment and how much deliberate intervention cost bridge the gap between the marginal social cost and private cost by firms. Environmental reporting is done in stages: from ad-hoc comments in the annual reports to stand-alone environmental reports. Investments in the environment are no longer viewed as additional costs but as part of corporate responsibility

2.1.3 Social Reporting

Social reporting is a form of reporting that discloses information about employment, occupation, health and safety, training and education, diversity and opportunity, community involvement and customer health and safety (GRI 2011). This is to say, it provides information about social responsibility practices that could increase a company's reputation, reduce potential liabilities and regulatory costs. This suggests a positive association between future cash flows and voluntary practice of social reporting. On the other hand, firms that engage in substantial social activities and disclose such in their financial statements will likely have reduced information asymmetries and may access capital at a lower cost. Disclosing its social activities plays a positive role in the decision made by investors.

2.1.4 Benefits of Corporate Sustainability Reporting.

The internal and external benefits associated with Sustainability Reporting according to KPMG (2008) in Kwaghfan (2015) are as follows:

i.   Reporting demonstrates a company's commitment to managing its environmental, social and economic impacts and, in doing so, establishing a sound basis for stakeholder dialogue and demonstrating transparency. It as well helps existing and prospective employees have expectations about corporate environmental, social and economic behavior, and consider such factors in deciding whether to join or remain with an organization. Publication of sustainability related information can play a role in positioning a company as an employer of choice. This status can enhance employee loyalty, reduce staff turnover and increase a company's ability to attract and retain high quality employees.

ii. Sustainability reporting often involves the collection, collation and analysis of data on resource and materials usage, and the assessment of business processes. This process can help a company

to better identify opportunities for cost savings and revenue generation through more efficient use of resources and materials.

iii. Corporate reputation is a function of the way in which a company is perceived by its stakeholders on one or more of the environmental, social and economic dimensions. Sustainability reporting can play an important role in managing stakeholder perceptions, and in doing so, help to protect and enhance corporate reputation.

iv. Internal management reporting of sustainability information focuses management attention on its approach to sustainability. External reporting causes focus not only on the integrity of the data, but also on continuous improvement across areas of reported performance. Furthermore, the establishment of publicly disclosed performance goals and quantified targets may drive internal change.

v. Sustainability reporting may assist the company prepare itself to manage emerging areas of compliance (e.g. greenhouse gas emission data) through the establishment of appropriate reporting systems and processes. Reporting may help a company to influence future regulatory responses (e.g. minimizing regulations across areas where voluntary disclosure frameworks are seen to be adequate).

vi. Sustainability Reporting may stimulate leading edge thinking and performance, thereby enabling a company to enhance its competitiveness. For example, the development of innovative products and services may be enhanced through a better understanding of particular stakeholder concerns, need and expectations. It may facilitate more rigorous and robust management systems and decision-making processes to better manage environmental, economic and social risks, opportunities and impacts.

2.2 Theoretical Review

2.2.1 Legitimacy Theory

Legitimacy theory is derived from the concept of organizational legitimacy which was first brought to limelight by Dowling and Pfeffer in 1975. Legitimacy theory provides a broad perspective on social and environmental disclosures, and in that sense also on sustainability reporting, as it accepts that companies operate in a so-called agreement with the social environment around them: they perform socially desired actions and in return their actions and objectives are approved, which confirms the continuous existence of the firm (Deegan, 2006; Guthrie & Parker, 1989). Thus, companies attempt to make sure that the activities they engage in are perceived as legitimate by external parties. As a matter of fact, gaining legitimacy is a resource needed for a company to survive. Legitimacy theory holds that, a firm has a social contract, which can be implicit and/or explicit with the society as a

whole (Shocker & Sethi 1974). Social contract is expressed by the expectations of the society which are not fixed and changing over time (Islam & Craig, 2008). The firm holds a moral obligation to meet the expectations of the societal members. If a firm fulfills the expectations of the whole society, then it would be treated as legitimate otherwise its legitimacy would be at risk (Deegan & Jeffry 2006). Only legitimate firms have the right to utilize society's natural and human resources. So, organizations are required to respond to the changing expectations of the society to maintain their legitimacy.

The assertion behind the legitimacy theory is that, organizations are engaged in a social contract concord between them and the society within which they are located. It is therefore expected that organizations will operate according to the norms of such societies and reveal vital information to the society about the use of the environment (Utile, 2016). Therefore, to be legitimate firms must engage in corporate social responsibilities and report same through sustainability reporting in order to gain acceptance from all stakeholders.

2.2.2 Stakeholder Theory

Stakeholder theory was propounded by Edward Freeman in 1984. Stakeholder theory views the explicit expectations of the various stakeholder groups within the society as determining the social disclosure practices. Stakeholder theory proposes that, organizations have various groups or individuals called stakeholders who affect or are affected by the activities of the firm (Sweeney & Coughlan, 2008). The argument advocated by the stakeholder theory is that all stakeholders have the right to be treated reasonably by the organization and to have information on the performance of the companies within their location (Freeman, 1984). Thus, for firms to achieve this, they must engage in corporate responsibilities and report same through sustainability reporting.

2.3 Empirical Review

The study reviews relevant literature on effect of sustainability reporting on performance of listed firms. For instance, Ismail *et al.* (2022) investigated corporate sustainability reporting and firms' financial performance in emerging markets using 24,029 firm year observations from fourteen (14) emerging markets including China, Egypt, Hungary and others for the period 2011-2018. The study employed correlational research design and weighted least square regression to analyze the data. The study found that sustainability report results in high financial performance in emerging markets. Therefore, it is recommended that firms in emerging markets engage in sustainability reporting. The study has a time lag of 3 years because the study is in 2022 but the cover period is only up to 2018. It

also cuts across several countries but the present study findings will be narrowed to Nigeria in the industrial goods sector.

Chiamogu and Okoye (2020) ascertained the extent environmental cost affects financial performance of oil and gas companies in Nigeria. The specific objectives were to determine the effect of community development cost and environmental remediation cost on Tobin's on oil and gas companies in Nigeria. Ex post facto research design was employed and data was obtained from annual reports and accounts for the periods 2011 to 2018. The hypotheses were tested using regression analysis with aid of e-view 9.0. The results of the empirical data analysis revealed that community development cost and environmental remediation cost has positive significant effect on Tobin's.

Omesi and Berembo (2020) investigated the relationship between social accounting and the performance of listed oil and gas companies selected in Nigeria during the years 2012-2017. In particular, it examined the relationship between the social accounting and the return on asset of listed oil and gas companies in Nigeria. The explanatory and correlative project was adopted for the study, while secondary data were used for the study. The result of the study showed that there is no significant relationship between the social accounting and the performance of the activities of the oil and gas companies in Nigeria under study.

While the study of Omesi and Berembo (2020) was limited to the investigation of the relationship between social accounting and the performance of listed oil and gas companies selected in Nigeria during the years 2012-2017. This present study takes a different turn by focusing on the three components of environmental, social and economic disclosure of oil and gas companies in Nigeria from the period 2010-2019.

Etale and Otuya (2020) examined the relationship between environmental responsibility reporting and financial performance of quoted oil and gas companies in Nigeria. The study used secondary data obtained from the annual reports of 13 oil and gas companies quoted on the floor of the Nigeria Exchange Group for the years 2012- 2017. The study adopted the ordinary least square (OLS) regression method as the basic technique of data analysis. The study found significant positive relationship between financial performance and environmental responsibility reporting in the oil and gas sector of Nigeria. However, the findings of the study indicate that environmental responsibility reporting in Nigeria is still developing and that organizations operating in the oil and gas sector report very little information about the impact of their operations on the environment. This finding is not

quite surprising as most multinational oil and gas companies are not quoted on the NSE, as such were not included in the study.

The study of Nasiru, Abdulrahman, Babangida and Abubakar (2020) like the present study focus on listed oil and gas firms. However, the study of under reviewed only take sample from listed oil and gas firms in Nigeria. This present study made use of 8 listed oil and gas firms in Nigeria.

Syder, Ogbonna and Akani (2020) examined the effect of sustainability accounting report on shareholder value of quoted oil and gas companies in Nigeria. Cross-sectional and ex-post facto research designs were employed for the study. The population of the study was nine quoted companies on 2016/2017 fact book of the Nigerian Stock Exchange (NSE). The study sample was purposively selected to include only those companies that operated both on upstream and downstream sectors of the industry. Secondary data were obtained from the annual corporate reports of the concerned companies and Nigerian Stock Exchange from 2009 to 2018 by content analysis. Data analysis was with aid of E-view software version 7. It involved Autoregressive Distributed Lag (ARDL) bound test, descriptive statistic, model estimations and diagnostic analysis that adopted Augmented Dicky-Fuller Unit root test, error correction model and co-integration as well as multiple regressions. The findings of the study are: that employee training and community development expenditures had positive and significant effect on shareholder value added of the companies. However, the environmental compliance cost has no effect on shareholder value added. Predicated on these findings, it was concluded that sustainability accounting report has significant effect on shareholder value of quoted oil and gas in Nigeria, although the extent depends on the actual practice of the entity.

While the study of Syder, Ogbonna and Akani (2020) examined the effect of sustainability accounting report on shareholder value of quoted oil and gas companies in Nigeria from the period 2009-2018. This present study varies by examining the sustainability reporting and performance of listed oil and gas firms in Nigeria using sample drawn from the period 2010-2019.

Owolabi and Okulenu (2020) explicated on sustainability reporting as a catalyst to performance of insurance company in Nigeria. The study made use of the ex post facto research design. A sample was taken from Mutual Benefit Assurance PLC, which was employed in this study. Data was gotten from the annual reports and accounts of the sampled firm through content analysis. The data were analyzed using multiple regression analysis. The results revealed that sustainability reporting has a small but positive relation with Environmental Reporting and market value and performance of the organization,

social reporting was negatively related with market value and performance of the organization, and economic reporting was positively related with market value and performance of the organization.

Erhirhie and Ekwueme (2019) examined corporate social sustainability reporting and financial performance of Oil and Gas Industry in Nigeria. This study assessed the effect of corporate social sustainability reporting on Return on Assets, Return on Equity, and Return on Capital Employed of oil and gas companies listed on the Nigeria Stock Exchange. Ten oil and gas companies were sampled for the study. The study utilized secondary data collected via financial ratios and accounts of the individual companies and content analysis. The findings showed that social sustainability reporting exerts negative effect on all three performance proxies, howbeit only its effect on return on equity was statistically significant.

Uwalomwa, Obarakpo, Olubukola, Ozordi, Osariemen, Gbenedio and Oluwagbemi (2018) provides an insight into the bi-directional relationship between sustainability reporting and firm performance in quoted Deposit Money Banks (DMBs) in Nigeria. While the population size comprises of all deposit money banks quoted on the floor of the Nigerian Stock Exchange, judgmental sampling technique was used in the selection of the sampled banks. Considering the period 2014-2016, the annual report and stand-alone sustainability reports of the selected banks were analyzed through the use of content analysis and coded in order to obtain the sustainability disclosure index. The panel regression technique was used to analyze the data. The empirical findings show that there is a bi-directional relationship between sustainability reporting and firm performance of quoted Deposit Money Banks (DMBs) in Nigeria. This finding confirms the proposition of the legitimacy theory.

3. MATERIAL AND METHOD

The ex-post facto research design was adopted in this study. The population for this study comprised all 13 listed oil and gas companies in Nigeria Stock Exchange as at December, 2019. These firms are presented in a table below:

Table 1: Population of Oil and Gas Companies in Nigeria

S/No.	Nigeria
1	Total
2	Mobil
3	Forte Oil
4	Eternal
5	Japaul Oil

6	Mrs
7	Oando
8	Rakunit
9	Seplat
10	Becopetro
11	Anino
12	Cap oil
13	Con oil

Source: NSE, 2019

This study used the judgmental sampling technique to select 8 listed oil and gas companies in Nigeria as at 31st December 2019. The main criteria for the selection of the companies are:

1. They must be consistently quoted during the period under study.
2. Each company selected must also have complete data covering the period under investigation (2010-2019).

Using the above criteria, the following listed Oil and Gas Companies were selected to form the sample size:

Table 2: Sampled Listed Oil and Gas Companies in Nigeria

S/No.	Nigeria
1	Total Plc.
2	Mobil plc.
3	Forte Oil
4	Conoil
5	Eternal
6	Japaul Oil
7	MRS
8	Oando

The descriptive statistics and multiple regression analysis were used for analysis of data generated for the study variables. The study uses descriptive statistics to summarize the collected data in clear and understandable way using numerical approach, correlation analysis to ascertain the relationship between the dependent and independent variables and to investigate the direction of such relationship.

The study also utilizes the linear regression to describe the dependent variable using the explanatory variables.

To ensure the suitability of data employed in the study, some data robustness tests were conducted, such as normality test, heteroscedasticity, Variance Inflation Factor tests and Hausman specification test respectively. Data normality test was also conducted to ensure that the sampled data does not contain outliers that will produce spurious regression results. The test was conducted using Shapiro-Wilk test for normal data. In order to check if the error terms in the models do not have constant variance, the heteroskedasticity test was conducted. A regression model assumes that the variance of the error term is constant. If the error terms do not have constant variance, they are said to be heteroskedastic. According to Richard (2015), if the Chi Squared value of the heteroskedasticity test is significant with p-value below an appropriate threshold ($p<0.05$), then there is heteroskedasticity.

The Variance Inflation Factors (VIF) was equally utilized to measure the degree to which the variance of the estimated regression coefficients is inflated as compared to when the predictor variables are not linearly related. VIF is used to describe how much multicollinearity (correlation between predictors) exists in a regression analysis. A VIF greater than 10 is usually considered problematic.

Further test such as the Hausman specification test was also carried out to check whether the difference in coefficients are not systematic; If the test result is consistent with this assumption, the random effect is the most appropriate model otherwise the fixed effect model is adopted (Sarveshwar, 2016). The analysis above will be done with the aid of STATA version 16.

3.1 Model Specification

The following linear regression model has been formulated to guide the researcher in the investigation;

Profitability = f (Sustainability)

$$ROA = f(ECONR, ENVR, SOCR) \text{---} eqn\ 1$$

$$ROA_{it} = \alpha + \beta_1 ECONR_{it} + \beta_2 ENVR_{it} + \beta_3 SOCR_{it} + \beta_4 FS_{it} + e \text{-----------------------} eqn\ 2$$

where;

ROA_{it}	=	Return on Asset for oil and gas in time t
$ECONR_{it}$	=	Economic reporting for oil and gas in time t
$ENVR_{it} =$		Environmental reporting for oil and gas in time t
$SOCR_{it}$	=	Social reporting for oil and gas in time t
FS_{it}	=	Size of the company in time t
α	=	Model constant

$\beta_1 - \beta_4$ =   Coefficients of the variable used in the models.

e   =   The error term in the model

3.2 Decision Rule

Reject the null hypothesis if the probability lies below 5%.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Multi-collinearity Test

Table 1 shows the result of the ulticollinearity test based on VIF. The VIF ranges from 1.30 to 2.11 with a mean of 1.63 which is below a threshold 10 indicating the absence of ulticollinearity among the variables of the study. Based on this result, the study concludes that there is no ulticollinearity challenge among the variables.

Table 1: Variance Inflation Factor Results

Variable	VIF
SOCR	2.11
ECONR	1.72
ENVR	1.39
FS	1.30
Mean VIF	1.63

Source: STATA Version 16 Output

4.1.2 Heteroscedasticity

Ho = There is absence of heteroskadasticity in the distribution.

Decision Rule: Reject the null hypothesis if the probability of the chi square lies below 5%.

Table 2 presents the result of the heteroskadasticity test. The result of the test shows the presence of heteroskedasticity given that the probability of the chi square lies below 5%, based on the p-value of 0.0000. To correct the presence of heteroscedasticity, the final regression result will be computed using robust standard errors.

Table 2: Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity

Ho: Constant variance	Significance Level
Variables: fitted values of ROA	
Chi2(1)	47.03
Prob > chi2	0.0000

Source: STATA Version 16 Output

4.1.3 Shapiro-Wilk Test for Normality

The test result as presented in Table 3 shows that all variables have z- statistics values that are significant at 1%. This shows that the data used for the study is not normally distributed. Even though this study do not find extremely well visualized results for normal distribution, it is worth mentioning that according to the central limit theorem, sufficiently large random samples from the population, i.e. larger than 30, are expected to be approximately normally distributed (Singh, Lucas, Dalpatadu & Murphy, 2013). Since this study has a sample size that consists of 80 observations, it can be assumed that the samples are normally distributed (Ott & Longnecker, 2008; Singh, Lucas, Dalpatadu & Murphy, 2013).

Table 3: Shapiro-Wilk W Test Result

Variable	Obs	W	V	Z	Prob>z
ROA	80	0.46881	36.461	7.880	0.00000
ECONR	80	0.80062	13.685	5.733	0.00000
ENVR	80	0.90957	6.207	4.000	0.00003
SOCR	80	0.93148	4.703	3.392	0.00035
FS	80	0.45602	37.339	7.932	0.00034

Source: STATA Version 16 Output

4.1.4 Hausman Specification Test

This test checks if the error terms are correlated with the regressors. The test statistic result presented in Table 5 below is statistically insignificant at 5% as the probability statistics lies above the 5% level of significant. Hence, the study cannot reject the null of fixed effects. Consequently, the study estimates the random effects model. Therefore, the regression result presented in Table 7 and analysed in this study are based on the random effect robustness model.

Table 4: Hausman Specification Test

Chi2(1)	47.03
Prob > chi2	0.9961

Source: STATA Version 16 Output

Table 5: Correlation Matrix

	ROA	ECONR	ENVR	SOCR	FS
ROA	1.0000				
ECONR	0.0670	1.0000			
ENVR	0.0938	0.3486	1.0000		
SOCR	0.0408	0.4327	0.2630	1.0000	
FS	-0.0272	0.6332	0.4741	0.5079	1.0000

Source: STATA, Version 16 Output

Table 5 revealed that there is no relationship among the explanatory variables that is large enough (greater than 0.7) to pose the problem of serial correlations among the data. The table reveals a positive correlation coefficient between economic reporting (ECONR) and return on assets (0.067) of sampled oil and gas firms during the period under study. The positive coefficient between economic reporting and return on assets of the sampled firms is an indication that ECONR is associated with increased in financial performance of sampled oil and gas firms during the study period. In addition, environmental reporting (ENVR) is positively correlated with return on assets (0.0938) of sampled oil and gas firms in Nigeria during the study period. The positive coefficient between ENVR and ROA of sampled Oil and Gas firms suggests that ENVR is associated with increased financial performance. Finally, Table 5 shows a positive association between social reporting (SOCR) and return on assets of sampled Oil and Gas firms (0.0408). The positive relationship between SOCR and ROA of sampled Oil and Gas firms is an indication that social reporting is associated with increased financial performance of sampled Oil and Gas firms.

Table 6: Summary of GLS Random Effect Regression Results (Robust)

ROA	Beta Coef	Z-values	P > /Z/
ECONR	29.06831	3.33	0.001
ENVR	-18.92511	-2.22	0.026
SOCR	6.632619	0.62	0.538
FS	-2.174952	-4.39	0.000
Constant	1.938219	0.82	0.409
R^2		0.0248	
Wald chi^2 (4)		73.11	
Prob > chi^2		0.0000	

Source: Researcher's Computation Using STATA, Version 16

This section presents and analyses the GLS regression result of the explained variables proxied by ROA and the explanatory variables (ECONR, ENVR and SOCR) of the study. Table 6 presents the results of the random effects model. The Wald Chi^2 of 73.11, which is significant at 1% (0.0000), reveals the model is well fitted, while the coefficient of determination R^2 of 2.48% explains the variation of the dependent variable (ROA) as a result of the changes in the independent variables. It can therefore be inferred from result presented in Table 6 that, the independent variables (proxied by ECONR, ENVR and SOCR) have combined predictive power of 2.48% impacting on the profitability of sampled Oil and Gas firms operating in Nigeria, while the remaining 97.52% can be explained by other factors which are not captured in the model. The implication of this result is that economic, environmental and social dimension of sustainability reporting are not responsible for the overall performance of listed Oil and Gas firms in Nigeria. Other factors not captured in this study such as corporate governance mechanisms, capital structure, efficient cash flow management etc. account more for the variation in performance of listed Oil and Gas firms in Nigeria. The regression results as presented above reveals an intercept of 1.938219 at an insignificant p-value of 0.82. This simply implies that when no other variables are considered, the return on assets of sampled Oil and Gas Companies is insignificantly estimated at 1.94 occasioned by factors not examined in this study but impact on performance of sampled Oil and Gas Companies in Nigeria. The result presented in Table 7 shows that economic reporting (ECONR) positively influences the ROA of sampled Oil and Gas Companies in Nigeria. ECONR has a beta coefficient of 29.07 and a p-value of 0.001, which lies below the 5% level of significance in social sciences. This implies that a unit change in ECONR will lead to a significant increase in performance of sampled Oil and Gas Companies in Nigeria. This implies that economic reporting activities of sampled Oil and Gas Companies in Nigeria significantly enhance their financial performance.

Furthermore, the result of the estimated model shows that environment reporting (ENVR) negatively influences the ROA of sampled Oil and Gas Companies in Nigeria. Table 7 reveals that environment reporting (ENVR) has a beta coefficient of -18.93 and a p-value of 0.026 which lies below the 5% level of significance in social sciences. This implies that a unit change in ENVR will lead to a significant decrease in the return on assets of sampled Oil and Gas Companies in Nigeria by 18.93 thus indicating that environmental reporting activity significantly decreases the performance of sampled Oil and Gas Companies in Nigeria. 2Finally, social reporting (SOCR) going by the result shows a positive relationship with the ROA of sampled Oil and Gas Companies in Nigeria. The result reveals a beta coefficient of 6.63 and a correspondent p-value of 0.538, which lies above the 5% level of significance. This implies that a unit change in social reporting (SOCR) will lead to a 6.63 decrease in ROA of sampled Oil and Gas firms. This result could be interpreted to mean that SOCR insignificantly increases the financial performance of sampled Oil and Gas Companies in Nigeria during the period under study.

4.2 Test of Hypotheses

The p-values are used to test the significance of the relationship between the dependent and the independent variables. The test is performed at 5% level of significance.

4.2.1 Hypothesis One

Ho₁: *Economic reporting does not have a significant effect on Return on Assets (ROA) of sampled oil and gas firms in Nigeria.*

4.2.1.1 Decision: In testing the first hypothesis, the results in Table 6 reveals that has a p-value of 0.001, which lies below the 5% level of significance. This leads to the rejection of the null hypothesis. The study therefore concludes that economic reporting has a significant effect on Return on Assets (ROA) of sampled oil and gas firms in Nigeria.

This implies that economic reporting activities significantly improves the performance of sampled Oil and Gas firms in Nigeria. This is so because sampled Oil and Gas firms' investment economic activities often translates to more reporting of these activities which thus goes a long way to enhance the performance of these companies. This finding agrees with findings of Owolabi and Okulenu, (2020) who studied sustainability reporting as a catalyst to performance of insurance company in Nigeria and found that economic reporting was positively related with market value and performance of the organization. The findings is inconsistent with findings of Asuquo, Dada and Onyeogaziri,

(2018) who examined the effect of sustainability reporting on financial performance of selected quoted brewery firms in Nigeria and found that economic performance disclosure have no significant effect on return on asset (ROA) of selected quoted firms in Nigeria.

4.2.2 Hypothesis Two

Ho₂: *Environmental reporting does not have a significant effect on the Return on Assets (ROA) of sampled oil and gas firms in Nigeria.*

4.2.2.1 Decision: in testing the second hypothesis of the study, the results in Table 6 reveals that ENVR has p-value of 0.026 which lies below the 5% level of significance. This leads to the rejection of the null hypothesis. The study therefore concludes that environmental reporting has a significant effect on the Return on Assets (ROA) of sampled oil and gas firms in Nigeria.

This implies that environmental reporting significantly decreases the performance of sampled Oil and Gas firms in Nigeria. This finding implies the more Oil and Gas firms involve in environmental activities, which translates to them reporting it, will lead to a significant decrease in their performance. The findings of the study indicate that sampled Oil and Gas carries out intensive environmental responsibility reporting which is capital intensive, thus leads to decrease performance. This finding is consistent with findings of Etale and Otuya (2020) who the examined the relationship between environmental responsibility reporting and financial performance of quoted oil and gas companies in Nigeria and found a significant relationship between financial performance and environmental responsibility reporting in the oil and gas sector of Nigeria. This finding is however inconsistent with findings of Owolabi and Okulenu (2020) who explicated on sustainability reporting as a catalyst to performance of insurance company in Nigeria and found that sustainability reporting has a small but positive relation with Environmental Reporting and market value and performance of the organization. The finding is also inconsistent with findings of Asuquo, Dada and Onyeogaziri (2018) who examined the effect of sustainability reporting on financial performance of selected quoted brewery firms in Nigeria and found that environmental performance disclosure has no significant effect on return on asset (ROA) of selected quoted firms in Nigeria.

4.2.3 Hypothesis Three

Ho₃: *Social reporting does not have a significant effect on the Return on Asset (ROA) of sampled oil and gas firms in Nigeria*

4.2.3.1 Decision: More so, in testing the third hypothesis, the results in Table 6 reveals that SOCR has a p-value of 0.538, which lies above the 5% level of significance. This leads to the acceptance of the null hypothesis. The study therefore concludes that social reporting has no significant effect on the performance of sampled Oil and Gas firms in Nigeria.

This result could be interpreted to mean that social reporting insignificantly enhances the financial performance of sampled Oil and Gas firms in Nigeria during the period under study. This finding is consistent with findings of Omesi and Berembo (2020) who investigated the relationship between social accounting and the performance of sampled oil and gas companies in Nigeria during the years 2012-2017 and found that there is no significant relationship between the social accounting and the performance of the activities of the oil and gas companies in Nigeria under study. The findings also agree with findings of Asuquo, Dada and Onyeogaziri (2018) who examined the effect of sustainability reporting on financial performance of selected quoted brewery firms in Nigeria and found that social performance disclosure (SOC) has no significant effect on return on asset (ROA) of selected quoted firms in Nigeria. The finding disagrees with findings of Erhirhie and Ekwueme (2019) who examined corporate social sustainability reporting and financial performance of Oil and Gas Industry in Nigeria and found that social sustainability reporting exerts negative effect on all performance proxies. This finding is inconsistent with finding of Owolabi and Okulenu (2020) who studied sustainability reporting as a catalyst to performance of insurance company in Nigeria and found that social reporting was negatively related with market value and performance of the organization.

CONCLUSION AND RECOMMENDATIONS

This study investigated the effect of sustainability reporting on the performance of sampled Oil and Gas firms in Nigeria. Arising from the results obtained from the data collected and analyzed together with the test of hypotheses, it was found that sustainability reporting indicators like economic reporting and environmental reporting exerts a significant effect on the performance of sampled Oil and Gas firms in Nigeria. While on the contrary, social reporting has an insignificant effect on the performance of sampled Oil and Gas firms in Nigeria. In view of these findings, it is therefore, concluded that sustainability reporting influences the performance of sampled Oil and Gas firms in Nigeria. However, the degree and direction of the influence is dependent on the variable used in any research.

In consonance with the findings of the study, the following recommendations are proffered:

i.   Given that most firms do not provide a comprehensive dimensions of sustainability report, listed oil and companies in Nigeria should intensify economic dimension of sustainability reporting as this could lead to increased performance in addition to satisfying their information needs and assisting them to hold firms to account for not only economic reporting but also environmental and social reporting as its impacts them.

ii. Relevant authorities in Nigeria should formulate regulatory policies for the oil and gas sector organizations to abide by in order to include more information on environmental responsibility practices in their annual reports to enhance their performance.

iii. The management of sampled Oil and Gas companies should channel efforts towards participation in adequate social spending and dissemination as a way to increase stakeholder's confidence and show more transparency in its operations. This in turn could lead to better financial performance.

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LEASE ACCOUNTING AND INVESTOR RETURNS OF LISTED NON-FINANCIAL FIRMS IN NIGERIA

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ABSTRACT:

The broad objective of the study is to examine the effect of lease accounting on investor returns of listed non-financial firms in Nigeria. The study specifically examined the effect of lease accounting on dividend yield and earnings per share of listed non-financial firms. The study adopted the expost facto research design. The population was comprised of non-financial firms listed on the Nigerian Exchange Group (NGX). A total of ninety - five (95) non-financial firms listed on the Nigerian Exchange Group were identified as of 31st December 2022. The study employed a purposive sample of seventy-four (74) non-financial firms. The study relied on secondary data from annual reports and accounts covering a period of 11 years (2012 – 2022). The data were analysed using Ordinary Least Square (OLS) with the aid of IBM SPSS Ver. 25 statistical software. The results showed a non-significant effect of lease accounting on the dividend yield of listed non-financial firms; and, a non-significant effect of lease accounting on earnings per share of listed non-financial firms in Nigeria. Based on this, the researcher recommends that shareholders should evaluate the lease contractual arrangements of firms, such as debt covenants, repayment obligations, and future cash flow requirements. Shareholders should evaluate the implication of lease liabilities on their detrimental effects on EPS as, under the new standards (such as IFRS 16), companies are required to recognize lease liabilities and corresponding right-of-use assets on the Statement of Financial Position (SoFP).
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1. INTRODUCTION

Leasing is a possibility for organisations to expand their access to short- and medium-term financing. The rapid growth of leasing as a means of funding prompts the accounting standard to change dynamically due to periodical modifications. In 2006 International Accounting

Standard Board (IASB) and the Financial Accounting Standard Board (FASB) formed a joint project to revise accounting standards for leasing. As a result, the exposure draft for leases was issued in August 2010 and revised in the second quarter of 2013. In the latest exposure draft, IASB and FASB suggest capitalization of assets and liabilities arising from company leasing activities (Sacarin, 2017). Previously, operating lease payment was categorized as an expense even though it substantially results in continuing liability for both lessor and lessee, as opposed to liability that ends in one accounting period as an expense, because a lease normally runs for more than one year.

A finance lease is a lease that transfers substantially all the risks and rewards incident to ownership of an asset. An operating lease is a lease other than a finance lease. Leasing is referred to as asset-based financing. As lessors retain ownership of the assets they lease throughout the life of the contract, these leased assets are therefore an inherent form of collateral in such contracts (compared to traditional bank lending which will either be unsecured or make use of different types of collateral and typically not physical assets such as equipment which are inherent in leases). Hence, leasing separates the legal ownership of an asset from its economic use. Ownership of the asset may or may not pass to the customer at the end of the lease contract. Contracts, where legal ownership of the asset passes directly to the customer at the start of the agreement, are not considered to be leases. Based on contractual arrangements, the lessee is allowed to use an asset which is owned by the lessor; the lessee pays specified periodic rentals. The lessor relies on the lessee's ability to generate sufficient cash flows to pay the lease rentals (rather than relying on the lessee's other assets or track record/credit history). Current accounting standards such as IAS 17 and IFRS 16 require companies to disclose financial obligations resulting from non-cancellable operating leases. Accordingly, managers do take advantage of the operating lease method in order to hide liabilities in the statement of financial position in order to make the financial statements more attractive. It is believed that rented assets which are recorded as financing or capital lease will negatively affect financial position, increase the probability of the company violating debt covenants, reduces compensation paid to owners of companies, and decrease the rate of return and quality of debt to equity. These impacts may make the company less attractive to potential investors. Bennet and Bradburry, (2013) further showed that capitalization of an operating lease into the statement of financial positionmay affect accounting ratios. If accounting ratios are the main input in decision-making, then this will affect decisions made by users of financial statements.

Investor returns refer to the gains or losses that investors earn from their investments over a specific period. These returns can be realized through various sources, such as dividends,

capital appreciation, interest income, or other distributions.The measurement of investors' returns should be done from the shareholders' approach or perspective using share price, retained earnings, company size, earnings per share, and dividend yield among others.Dividend Yield and Earnings per Share are two important financial metrics that provide insights into a company's profitability and potential return for investors (Asimakopoulo, Samitas, & Propadogonas, 2019).

Prior studies performed by several researchers on economic determinants that explain the use of operating leases (Eisfeldt & Rampini, 2019; Cornaggia, 2017) yield mixed results. Some researchers (Imhoff, Lipe, & Wright, 2017; Beattie, Edwards, & Goodacre, 2018; Bennet & Bradburry, 2016; Lückerath & Bos, 2019) were conducted to prove whether capitalization of the operating lease can significantly alter financial figures and affects the market value of companies. Beattie (2018) found evidence that operating leases used by companies in the United States of America affected financial ratios significantly and influenced market value. The study by Lückerath and Bos (2019) concludes that a fair comparison of financial performance and market value among firms cannot be performed if the operating lease is not capitalized because firm financial ratios do not reflect the real financial condition. The divergent opinions and mixed results in the literature on the effect of lease accounting on market value. While some studies have documented the positive effect of lease accounting on company market value (Bennet & Bradburry, 2016; Imhoff, Lipe, & Wright, 2017; Beattie, & Edwards), some others have reported the negative effect of lease accounting on company market value (Lückerath & Bos, 2019). Consequently, inconclusiveness has become imperative, thus some gaps observed in the literature. Besides some related studies on lease accounting and firm value covered the period of 2001 to 2009, 2011-2013 while some covered 2015 to 2018. This study tends to fill this periodical gap as well by covering 2012 to 2022. In addition, there is a dearth of studies that have considered the effect of lease accounting on investor returns.

1.1 Objectives of the Study

This study fills the above gap by examining the effect of lease accounting on investor returns of listed non-financial companies in Nigeria. The specific objectives are to:

1. Determine the effect of lease accounting on the dividend yield of listed non-financial firms in Nigeria.

2. Ascertain the effect of lease accounting on earnings per share of listed non-financial firms in Nigeria.

1.2 Research Hypotheses

In order to test the effect of sustainability reporting on financial performance of listed oil and gas companies in Nigeria, the following hypothesis are formulated in their null form:

Ho_1:   Lease accounting has no significant effect on the dividend yield of listed non-financial firms in Nigeria.

Ho_2:   Lease accounting has no significant effect on earnings per share of listed non-financialfirms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Lease Accounting

Leasing is one of the most highly innovative areas of business finance that has generated several definitions representing the perspective and background of the user. A lawyer would be more concerned with the legal title of the asset, an economist is concerned with the productive use of the asset; an accountant is concerned with reporting in accounts, the board of Inland Revenue is concerned with capital allowances and the banker with risk exposure as a result of financing the acquisition of the asset. Therefore, each one will define leasing based on itsperspective. However, the common denominator underlying the definitions of leasing focuses on the separation of ownership and use of the asset over lease tenure, as the essence of leasing, (Sacarin 2017).The impact is more significant in sectors with a higher operating lease intensity (Morales and Zamora, 2017), such as retail (real estate leases), airlines (aircraft leases), hotels (real estate leases), and so on.

Lease accounting has been a work in progress for years for accounting standard-setters and international accounting standard bodies. Comparing Nigeria's performance with those of other countries around the world indicates that Nigeria is ranked 46th on the list of top 50 countries using lease finance, contributing 0.51 billion dollars to the global lease volume in 2017 (White Clarke Group, 2019). Only three other African countries such as South Africa, Morocco and Egypt made the global ranking that is largely dominated by North American, European and Asian countries. With a low representation of African countries, the implication is that there is still potential for substantial growth in terms of lease volume through the identification and exploitation of opportunities to entrench leases as a mainstay source of finance in Africa particularly in Nigeria.

There are four broad categories of market participants in the Nigerian lease industry which comprise regulators, associations, lessors and lessees. The regulators include the Central Bank of Nigeria which is the apex regulator of all banking and non-banking financial transactions. The associations include the Equipment Leasing Association of Nigeria (ELAN) and Finance Houses Association of Nigeria (FHAN) which provide the platform and oversight for consummation of lease transactions. Oversight of the practice of lessors is vested in the ELAN, which is a business membership organization (BMO) established in 1983 to promote leasing activities and consistsof an addition to banks, leasing companies, finance houses, insurance companies, professional firms and individual members. Generally, Leases are classified currently under IAS 17 as finance and operating which are distinguishable in terms of non-cancellation, near-synonymous duration of lease term with asset life, payments leading to amortization of cost and generation of return as obtainable in a finance lease and the reverse, in case of an operating lease (Central Bank of Nigeria, 2014).

2.1.1.1 Characteristics of Lease Terms

1. The lessor remains the owner of the equipment for the duration of the lease, while the lessee acquires temporary possession and usage of the equipment.
2. The lessee may be required to make a deposit payment on signing of the lease and to make periodic payments to the lessor for the duration of the lease term.
3. The lessor may or may not recognise a salvage value in calculating the leasing payments.

2.1.2 Operating Lease and Financial Lease

Operating leases, also referred to as off-balance sheet leasing, are defined as non-cancellable, long-term, fixed-cost claims with bankruptcy priority (Alexander, Britton, Jorissen, Hoogendoorn, & Van Mourik, 2017). As a consequence, operating leases or off-balance sheet leasing is fundamentally a form of conventional debt obligation. Under the previous International Accounting Standard 17 (IAS 17) from a lessee perspective, only payments relative to the current rental expense are recognised in the company's financial statements. All future payments relative to operating leases are disclosed in the notes to the financial statement. This off-balance sheet treatment of operating leases has created a long controversy in the accounting literature. Many studies document that firms' use of operating leases has increased significantly suggesting that companies use operating leases as a form of off-balance sheet financing and a form of manipulation of financial statements (Cornaggia, 2017).

The standard providesthe reader with some potential indicators to conclude that a lease is a finance lease.A finance lease is defined as a transaction in which substantially all the risks and rewards of an asset except ownership are transferred from the lessor to the lessee. It is commonly understood in substance as equivalent to a secured loan in the sense that the lessor is insulated from the commercial risks and rewards of the ownership of the leased assets. Furthermore, given that the financial leases are recognized in the balance sheet and the operating leases are not, this gives space for some manipulation by companies, so that they can fit their leasing contracts in a certain category to avoid having so much debt recognized in the balance sheet. The lessor bears the responsibility for servicing and maintaining the asset and these costs are included in the lease rental. It enables the lessor to keep a pool of qualified maintenance personnel for cost-effectively maintaining a large number of assets.

2.1.3 Investor Returns

Investor returns refer to the gains or losses that investors earn from their investments over a specific period. These returns can be realized through various sources, such as dividends, capital appreciation, interest income, or other distributions. Accounting returns focus on how firm earnings respond to different managerial policies (Kramarova, 2020). There are different ways to measure investor returns, and commonly used metrics include dividend yield, EPS and DPS.

2.1.3.1 Dividend Yield

According to Gumanti (2013), dividend yield implies a measure that a component of total return is contributed by dividends. DY focuses on the income generated from dividend payments. It is calculated by dividing the annual dividend per share by the current market price per share and expressing it as a percentage. Dividend yield is particularly relevant for income-focused investors who rely on regular cash flow from their investments. This means that in calculating the total return, investors must include the element of the amount of dividends received in addition to the difference in share prices between the beginning and the end of ownership. Meanwhile, according to Fajrihan (2010), dividend yield is dividends paid divided by the current price. Based on the understanding of the experts above, it can be concluded that the dividend yield is a financial ratio that compares the amount of cash dividends distributed to shareholders with the share price, which is expressed as a percentage. Based on previous research that has been discussed, it can be concluded that dividend yield can be calculated by the formula:

Dividend Yields = <u>Dividend per Share</u>

Price per Share

The dividend yield is the financial ratio that measures the quantum of cash dividends paid out to shareholders relative to the market value per share. Dividend yield measures the quantum of earnings by way of total dividends that investors make by investing in that company (Economic Times, 2021). Pandey (2010) defines dividends as a portion of a company's net earnings that the directors recommend to be distributed to shareholders in proportion to their shareholdings in the company.

2.1.3.2 Earnings per Share

The higher the earnings per share, the more profit the firm earns; on the other hand, the lower the earnings per share, the less profit the company makes. Secondly, the earnings per share (EPS) is a financial metric that indicates the profitability of a company on a per-share basis. It is calculated by dividing the net earnings of the company by the weighted average number of outstanding shares during a specific period.

The formula for calculating EPS is as follows: EPS = (Net Earnings) / (Weighted Average Number of Outstanding Shares).

The EPS is a widely utilized measure that provides investors and analysts with valuable information about a company's profitability and its ability to generate earnings for its shareholders. It helps investors assess the company's earnings performance relative to the number of shares they own.

2.2 Theoretical Review

The following theories were used to form a theoretical background for this study; Financial Contracting Theory, Traditional Theory, and Trade-off Theory of Capital Structure Theory. The study anchored on the Trade-off Theory.

2.2.3 Trade-off Theory

The trade-off of capital structure was introduced by economists, Franco Modigliani and Merton Miller, and published in the American Economic Review in 1958. The theory was developed by Krans and Litzenberger in 1973. The theory asserted that since both operating lease and lease financing are fixed-claim obligations trade-off theory predicts that they are substitutes. Also, based on the agency story of trade-off theory, lease financing is a substitute for controlling the free cash flow problem. A brief explanation follows: In the case of debt financing the borrowing firm gets cash which it can use for various purposes (capital expenditures, repaying

existing debt, paying dividends, leverage buyouts etc.) However, in the case of lease financing the lessee gets capital goods which are exclusively meant for a specific use. Therefore, lease financing has only the capital expenditure feature but none of the other uses mentioned above are possible. Also, it is argued in the literature that firms with very unique/specific assets may want to buy them either through secured debt or equity. It turns out that unique assets are less liquid compared to other non-unique assets when the lessor tries to re-lease or resell the leased assets.

2.3 Empirical Review

Several studies have analyzed the possible effect that capitalization of the operating leases maintained by companies could have on the balance sheet, solvency and profitability ratios: (Bennett & Bradbury, 2003; Duke, Hsieh, & Su, 2009; Fülbier, Silva, & Pferdehirt, 2008; Goodacre, 2003; Grossman & Grossman, 2010; Imhoff Jr. & Lipe, 1991, 1997). However, these studies were conducted before the final version of IFRS 16 was issued, and therefore there were differences compared to the final version of the standards in aspects such as the effect of future lease payments and discount rates on the value of a firm (Morales-Díaz& Zamora-Ramírez, 2018a).

Atseye (2020), investigated the relationship between lease financing and profitability of 6 conglomerates from 2012 to 2017 in Nigeria analysed with pooled ordinary least square regression. It was discovered from the study that lease financing has a positive but insignificant effect on ROA.

Morales-Díaz and Zamora-Ramírez (2018b) find that IFRS 16 significantly affects the leverageratios of the sectors that rely heavily on operating leases, such as European retail, hotels,and transportation firms. On the other hand, their analysis of IFRS 16's effect on profitabilityratios shows mixed results. While these studies report a significant effect of leasecapitalization on accounting ratios. Giner and Pardo (2018) use Spanish-listedfirms to find that the market incorporates OBS operating lease information into the price asif OBS operating lease is recognized in assets and liabilities, even in code-law countrieswith less developed markets and weak enforcement.

Fafatas and Fischer (2016) examined 22 retail companies and then did an additional test to confirm the findings in the retail and restaurant industries with a wider sample (109 companies worldwide) in 2014. They found an average decline in the EBIT/Assets ratio was 4.07%. In addition to the increase in total assets and liabilities, the results from the literature also indicated

that operating lease capitalization can result in a material decline in profit margin, ROA ratio and ROE.

Arroziom, Gonzales and Silva (2016) studied the changes in the financial indicators of companies in the wholesale and retail sectors, due to the new accounting treatment of the operating leases of the companies listed on the Brazilian stock exchange, noting that leasing has effects on liquidity, debt andoperational leverage.Bello andAlmustapha (2016) examined the impact of lease financing on the liquidity of companies in the Nigerian oil and gas. The result revealed that leasing does not have a positive impact on the liquidity of the companies.

Paik, Smith, Lee, and Yoon (2015) suggest that the proposed capitalization of Off-Balance Sheet leases (operating leases) may not result in firms violating loan covenants but will make the balance sheet a more complete source of information for debt contracting by removing the need for constructive capitalization of OBS leases. They used logistic regression models to investigate the relation between OBS leases and the use of income-statement- or balance-sheet-based ratios in covenants. The potential for these changes to negatively affect the accounting ratios included in debt covenants leading to covenant violations is an area of concern. They argue that lenders constructively incorporate OBS leases when determining the financial constraints of the borrowing firm and this influences the type of accounting ratios to use in debt covenants: income-statement- or balance-sheet-based ratios.

Alazzam (2015) examined the extent of the presence of the motives of the contracting companies in Irbid City to rely on finance leases and to identify the most important obstacles which restrict its viability. The most important findings of this study are the existence of motives for contracting companies in Irbid City to resort to lease financing, financial leasing gives a tax savings system that provides adequate liquidity and profitability ratios reassured and can cover the cost of fixed assets profitably.

Kibuu (2015) researched the effects of lease financing on the monetary performance of corporations registered at NSE. Data from only 33 firms which was available and complete for the period under study was used. Secondary data from annual financial reports and financial statements was poised for the organizations for the period 2010 – 2014. The study concluded that lease financing had positive but insignificant effects on ROA which was used as the measure of the financial performance.

Olabisi (2015) also investigated the determinants of leasing decisions among quoted manufacturing 173 companies in Nigeria based on data from 173 analysed with Ordinary Least Squares (OLS) methods. It was discovered that profitability played a positive role in the leasing decisions of manufacturing companies. Focusing on the effect of operating lease on credit ratings.

3. MATERIAL AND METHOD

This study adopted the ex-post facto research design to ascertain the effect of lease accounting on investor returns of listed non-financial firms in Nigeria. The design is appropriate for this study because secondary data on leasing and investor returns of listed non-financial firms in Nigeriais already in the public domain through the annual reports and accounts. The population is comprised of non-financial firms listed on the Nigerian Exchange Group (NGX). This was ninety - five (95) non-financial firms listed on the Nigerian Exchange Group as of 31st December 2022. The study used a purposive sampling technique to select the sample population. This sampling technique will be used to enable the researcher to select firms that have their financial reports and accounts available either on their websites or on the floor of the Nigerian Exchange Group. The firms must have been listed on the Nigeria Exchange Group as of 2012. Based on the conditions stated above, Seventy-four (74) firms are selected as our sample population.

Secondary data was used for this study. The data were from annual reports and accounts ofthe seventy-four (74) non-financial firms listed on the Nigerian Exchange Group covering a period of 11 years (2012 – 2022). This study used Ordinary Least Square (OLS) to estimate panel data from 2012 to 2022 covering a period of eleven (11) years for seventy-four (74) non-financial firms listed on the Nigerian Exchange Group. This was carried out with the aid of IBM SPSS Ver. 25 statistical software.

3.1 Model Specification

The researcher adapted the model in Olokiti (2018). This is shown below

$MKTP_{jt} = \beta_0 + \beta_1 BVSH_{jt} + \beta_2 EPS_{jt} + e_{jt}$

This study modified the above model as follows, in econometric form:

$DYD_{it} = \alpha_0 + \beta_1 (LA)_{it} + \beta_2 FS_{it} + \beta_3 LEV_{it} + \mu_i$…......Eq. (1)

$EPS_{it} = \alpha_0 + \beta_1 (LA)_{it} + \beta_2 FS_{it} + \beta_3 LEV_{it} + \mu_i$…......Eq. (2)

Where:

LA   = the sum of the financial lease and operating leasefor firm i at the end of year t

DYD_{it} = dividend yield for firm iat the end of year t

EPS_{it} = earnings per share for firm i at the end of year t

FS_{it} = firm size for firm i at the end of year t

LEV_{it} = leverage for firm i at the end of year t

μ_i = error term

α_0 = the intercept

$\beta_1 - \beta_3$ =coefficients of explanatory variable.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistics

Table 2: Summary statistics of dependent variablesin the models 1&2

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Dividend Yield(%)	847	.00	55.65	3.1435	5.24295
Earnings Per Share	847	-96.01	61.77	1.4323	8.04320
Valid N (listwise)	847				

Source: SPSS Ver. 25

The mean (standard deviation) of the DVs which proxies the DYD and EPS showed as follows: DYD=3.14(5.24); and, EPS=1.43 (8.04). The maximum value of DYD was 55.65 while the minimum was 0.00. The maximum value of EPS was 61.77 while the minimum was -96.01. The maximum value of RER was 75.53 while the minimum was -571.61. The skewness for DYD (4.830) showed a positive value and the kurtosis (38.655) is suggestive of a leptokurtic distribution. The skewness for EPS (-0.830) showed a negative value and the kurtosis (56.324) is suggestive of a leptokurtic distribution.

Table 3: Summary statistics of lease accounting and control variables in models 1&2

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Operating Lease/Asset	847	.00	38.11	.6411	3.39785
Finance Lease/Asset	847	.00	47.70	.7504	4.24226
Firm Size	847	5.24	9.42	7.1183	.82206
Debt/Asset	847	3.55	395.45	67.7041	43.48994
Valid N (listwise)	847				

Source: SPSS Ver. 25

The mean (standard deviation) of the IV which proxies the OL and FL showed as follows: OL=0.641 (3.398); and, FL=0.750 (4.242). The mean (standard deviation) of the control variables were firm size and firm leverage; FS=7.12 (0.82); and, LEV=67.70 (43.49). The maximum value of OLwas 38.11while the minimum was 0.00. The maximum value of FLwas 47.70while the minimum was 0.00. The maximum value of FS was 9.42 while the minimum value was 5.24; the maximum value of LEV was 395.45 and the minimum value was 3.55. The study also examines *skewness* which refers to a measure of the symmetry or asymmetry of the distribution of values. Positive skewness indicates a longer right tail, while negative skewness indicates a longer left tail.The skewness for OL (8.244) showed a positive value and the kurtosis (75.435) is suggestive of a leptokurtic distribution. The skewness for FL (7.883) showed a positive value and the kurtosis (68.001) is suggestive of a leptokurtic distribution. The skewness for FS (-.192) showed a negative value and the kurtosis (-.417) is suggestive of a platykurtosdistribution.The skewness for LEV (3.342) showed a positive value and the kurtosis (16.025) is suggestive of a leptokurtic distribution.

4.1.2 Correlation Analysis

Table 4: Correlation matrix of the variables

		OL	FL	DYD	EPS	FS	LEV
OL	Pearson Correlation	1	.593**	-.016	-.009	.081*	.065
	Sig. (2-tailed)		.000	.644	.798	.018	.058
	N	847	847	847	847	847	847
FL	Pearson Correlation	.593**	1	-.068*	-.030	-.042	.183**
	Sig. (2-tailed)	.000		.049	.389	.224	.000
	N	847	847	847	847	847	847
DYD	Pearson Correlation	-.016	-.068*	1	.066	.165**	-.143**
	Sig. (2-tailed)	.644	.049		.056	.000	.000
	N	847	847	847	847	847	847
EPS	Pearson Correlation	-.009	-.030	.066	1	.291**	-.042
	Sig. (2-tailed)	.798	.389	.056		.000	.218
	N	847	847	847	847	847	847
FS	Pearson Correlation	.081*	-.042	.165**	.291**	1	-.125**
	Sig. (2-tailed)	.018	.224	.000	.000		.000
	N	847	847	847	847	847	847
LEV	Pearson Correlation	.065	.183**	-.143**	-.042	-.125**	1
	Sig. (2-tailed)	.058	.000	.000	.218	.000	
	N	847	847	847	847	847	847

Source: SPSS Ver. 25

The OL is positively correlated with FL (r=0.593**). Concerning other DVs, OL is negatively correlated with DYD (r=-0.016) and EPS (r=-0.009). In regards to the control variables, FS and LEV, the OL positively correlated with FS (r=0.081) and LEV (r=0.065). FL is negatively correlated with DYD (r=-0.068*) and EPS (r=-0.030). In regards to the control variables, FS and LEV, the FL negatively correlated with FS (r=-0.042) and positively associated with LEV (r=0.183**).

DYD is positively correlated with EPS (r=0.066). In regards to the control variables, FS and LEV, the DYD positively correlated with FS (r=0.165**) and negatively associated with LEV (r=-0.143**).

EPS is positively correlated with PER (r=0.146**). In regards to the control variables, FS and LEV, the EPS positively correlated with FS (r=0.291**) and negatively associated with LEV (r=-0.042).

4.3 Test of Hypotheses

4.3.1 Hypothesis One

Ho: Lease accounting has no significant effect on the dividend yield of listed non-financial firms in Nigeria.

Table 5a: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.209[a]	.044	.040	5.13647

a. Predictors: (Constant), LEV, Firm Size, LA

Source: SPSS Ver. 25

Table 5b: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1014.189	3	338.063	12.814	.000[b]
	Residual	22241.130	843	26.383		
	Total	23255.319	846			

a. Dependent Variable: Dividend Yield(%)

b. Predictors: (Constant), LEV, Firm Size, LA

Source: SPSS Ver. 25

Table 5c: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-2.663	1.610		-1.654	.098
	LA	-.027	.026	-.035	-1.019	.308
	Firm Size	.958	.217	.150	4.423	.000
	LEV	-.014	.004	-.120	-3.484	.001

a. Dependent Variable: Dividend Yield(%)

Source: SPSS Ver. 25

The empirical results of the OLSshowed that the R^2 value was 0.044; the Adjusted R^2 value of the model was approximately 0.040, and the F-test (12.814) was statistically significant ($p<$ 0.01); therefore, the research model can describe the relationship between explanatory variables and thedependent variable. The Adjusted $R^2$is often preferred to account for sample size

adjustments, the figure showed that 4.0% variation was explained by the explanatory variables while othervariables excluded from themodel that can impact DYD but outside the scope of this study.

4.3.1.1 Decision:

Lease accounting as an independent variable to DYD appears to have a negative coefficient (i.e., -0.035) and is not significant at a 5% level (p=0.308). This, therefore, implies that an increase in LA will cause a decrease in DYD. This evidence, therefore, leads to a rejection of the alternate hypothesis and acceptance of the null; thus, "Lease accounting has no significant effect on dividend yield of listed non-financial firms in Nigeria".

Lease accounting has no significant effect on the dividend yield of listed non-financial firms in Nigeria (p=.308>.05); this implies that an increase in LA will lead to a decrease in the DYD of the non-financial firms in Nigeria. Therefore a 1 unit change in LA will lead to approximately -0.035 change in DYD. This is consistent with the study by DeChesare (2023), which finds that a company's lease expenses could impact its overall financial performance and ability to pay dividends.Milian and Lee (2020) investigated the relationship between equity valuation and operating leases based on 2019 first-quarter earnings and public firms' daily stock returns. They asserted the initial recognition of a significant amount of operating leases led to negative returns (Milian&Lee, 2020).Hunsader, Lawrey, and Rich (2022) find evidence from a sample of U.S. firms that as a result of the FASB's ASC 842 on improved transparency in lease recognition had significantly enhanced the distress likelihood across many industries increased.

Bourjade*et al.* (2017) did an empirical study on 73 airlines worldwide and concluded that leasing activities have a non-monotonic and concave effect on the airline's profit margin. Leasing activities diminish the profit margin of low-cost carriers more significantly than full-service carriers (Bourjade*et al.*, 2017). However, in contrast, Kelly, Khayum, and Price (2013) from 1992 to 2012 revealed that community banks involved in equipment lease financing performed better than the community banks that had no involvement in equipment leasing.Atseye (2020), inNigeria,analysed with pooled OLS discovered that lease financing has a positive but insignificant effect on return assets.

4.3.2 Hypothesis Two

Ho: Lease accounting has no significant effect on earnings per share of listed non-financialfirms in Nigeria.

Table 6a: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.292[a]	.085	.082	7.70587

a. Predictors: (Constant), LEV, Firm Size, LA

Source: SPSS Ver. 25

Table 6b: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4672.578	3	1557.526	26.230	.000[b]
	Residual	50057.768	843	59.381		
	Total	54730.346	846			

a. Dependent Variable: Earnings Per Share

b. Predictors: (Constant), LEV, Firm Size, LA

Source: SPSS Ver. 25

Table 6c: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-18.766	2.416		-7.769	.000
	LA	-.031	.039	-.027	-.801	.423
	Firm Size	2.848	.325	.291	8.762	.000
	LEV	.000	.006	-.002	-.066	.947

a. Dependent Variable: Earnings Per Share

Source: SPSS Ver. 25

The empirical results of the OLS showed that the R^2 value was 0.085; the Adjusted R^2 value of the model was approximately 0.082, and the F-test (26.230) was statistically significant ($p<0.01$); therefore, the research model can describe the relationship between explanatory variables and the dependent variable. The Adjusted $R^2$is often preferred to account for sample size adjustments, the figure showed that 8.2% variation was explained by the explanatory variables

while other variablesexcluded from the modelthat can impact EPS but are outside the scope of this study.

4.3.2.1 Decision: Lease accounting as an independent variable to EPS appears to have a negative coefficient (i.e., -0.027) and is not significant at a 5% level (p=0.423). This, therefore, implies that an increase in LA will cause a decrease in EPS. This evidence, therefore, leads to a rejection of the alternate hypothesis and acceptance of the null; thus, "Lease accounting has no significant effect on earnings per share of listed non-financial firms in Nigeria".

Lease accounting has no significant effect on earnings per share of listed non-financial firms in Nigeria (p=0.423>.05); this implies that an increase in LA will lead to a decrease in the EPS of the non-financial firms in Nigeria. Therefore a 1 unit change in LA will lead to approximately -0.801change in EPS.This is not consistent with Mark and Wayne (2023) on the consequences of operating lease recognition who found no evidence that the change in the leasing behaviour leads to negative outcomes predicted by managers. Alazzam (2015) reported that finance leases offer a mechanism for tax savings, sufficient liquidity and profitability ratios, and can successfully pay for the cost of fixed assets.And, Atseye (2020), in Nigeria discovered that lease financing has a positive but insignificant effect on return assets.

CONCLUSION AND RECOMMENDATIONS

The study concludes that lease accounting affects the investor returns of listed non-financial firms in Nigeria. Prior empirical studies have considered that in line with IFRS operational and finance leases utilised by non-financial businesses have a considerable impact on investor returns over time. Firmscan increase their access to short- and medium-term financing by leasing. However, in related literature, there have been conflicting views and inconsistent findings about the potential impact of lease accounting on firm investor returns. This study attempts to fill in this gap, by examining the effect of lease accounting on investor returns proxies of non-financial firms from 2012 to 2022, the most recent up-to-date financial statement. The results showed a non-significant effect of lease accounting on the dividend yield of listed non-financial firms in Nigeria; and, a non-significant effect of lease accounting on earnings per share of listed non-financial firms in Nigeria. Based on this, the researcher recommends the following for managerial and policy implications for future studies as follows:

1. Shareholders should evaluate lease contractual arrangements of firms: The disclosure of lease liabilities on the statement of financial position, stakeholders can evaluate the financial impact of lease obligations, such as debt covenants, repayment obligations, and future cash flow requirements.

2. Shareholders should evaluate the implication of lease liabilities on their detrimental effects on EPS: Before the implementation of new lease accounting standards, companies typically only recognized lease expenses on their income statement.

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FOREIGN AND INSTITUTIONAL OWNERSHIP AND FINANCIAL STATEMENT FRAUD AMONG NON-FINANCIAL LISTED FIRMS ON THE NIGERIA EXCHANGE GROUP

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ABSTRACT:

This work examines the influence of foreign and institution ownership on financial statement fraud among non-financial listed firms in Nigeria. The high rates of business failure are linked with financial statement fraud; hence this study tends to examine the influence of foreign and institution ownership on the financial statement fraud among selected listed manufacturing firms in Nigeria. The objective of this study is to examine the influence of foreign and institution ownerships on financial statement fraud among non-financial listed firms on Nigerian Exchange Group. The study used an ex post facto research design. Ninety-five (95) non-financial firms listed as at 31st December 2022. The study used a purposive sampling technique to select the sample size from the population. The study adopted secondary source of data. Ordinary Least Square multiple regression and Binary Logit Regression Technique were used to analyze the data collected for this work through the aid of E-View 9.0 software. The findings of the study revealed that foreign and institutional ownerships have significant effects on the financial statement fraud among non-financial listed firms in Nigeria. Based on the results and analysis, this study concludes that foreign and institutional ownerships have significant effect on the financial statement fraud of non-financial firms listed on the Nigerian Exchange Group (NGX). This study recommended among others based on the findings of this study since foreign and institutional ownership have significant effects on financial statement fraud, regulatory authorities like Financial Reporting Council of Nigeria and Nigeria Exchange Group (NGX) should make policy that will encourage foreign investors to own more shares in non-financial listed firms because foreign ownership will demand management to be transparent in financial reporting to maximize control and minimize fraudulent actions.
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1. INTRODUCTION

Financial statement is the responsibility of management and prepared to report to the various stakeholders on how the resources of the companies have been used and their effectiveness in achieving the organisational goals (Hassan, 2011). These statements also provide the means of informing shareholders about the current financial positions of the firms (Alzoubi, 2012). Thus, financial report is expected to report the real economic positions of companies. However, in preparing the financial reports, there are potential of risk of manipulations of the reported earnings such that the reported results of operations do not reflect the actual conditions of the companies (Obigbemi, Omolehinwa, Mukoro, Ben-Caleb, & Olusanmi, 2016). The business environment in this country is also plagued with ethical problems associated with corporate scandals involving large companies (Enobong, 2017). Thus, it was indicated that there were about 1,639 cases with losses of 18.5 million USD in 2012, 314.5 million USD with 3,380 cases in 2013, and the highest number of cases 3,756 with losses of 254.5 million USD were recorded in 2014 (Enofe, Omagbon, & Ehigiator, 2015). For example, the Cadbury (Nig) PLC scandal has remained a reference point for fraudulent financial reporting. Other incidences of fraudulent financial reporting in Nigeria include the fraud at Afribank Plc, the case of Oando oil Plc and Arik airline are the corporate frauds recorded in 2017, Gupta scandal in 2017, Samsung accounting scandal in 2018, Wells Fargo and Co. in 2018, Nissan in 2018, Tesla corporate scandal in 2018, Steinhoff corporate fraud in 2019 and Wirecard accounting fraud in 2019 among others.

Norazida and Moorison (2014) said financial statement fraud involve the falsification of accounts and records, which, ultimately, misleads the financial statement users. In this case, the false financial reporting can be associated with market manipulation through which the manipulation of financial figures is achieved to mislead the company's investors. Expectedly, the business community at large and in Nigeria has shown serious concerns for financial statements fraud. Ownership structure is seen as the collection of owners that exercise control over activities of a firm. Therefore, these ownership structure mechanisms as foreign and institutional are supposed to act as pre-emption mechanisms and preserve investors' wealth (Ohidoa – Toluwa & Ohidoa, 2021). Ownership structure has become a great global concern because of the rising frequency and widespread pattern of deliberate accounting irregularities and fraudulent financial reporting. Adams, Hermalin, and Weisbach (2010) argued that these financial scandals had placed foreign and institutional ownership in the limelight of governance reforms. In Nigeria, different corporate governance codes have been developed, most of which are industry-specific, such as the Code of Corporate Governance in Nigeria of 2003, 2011, 2016

and now 2018.The 2003 and 2011 codes were both issued by the Securities and Exchange Commission (SEC).The 2016 and 2018 were issued by the Financial Reporting Council of Nigeria. Beyond these mentioned codes, the Code of Corporate Governance for Central Bank of Nigeria's (CBN's) (2006) issued Code of Corporate Governance in Nigeria for post-consolidation; the Code of Corporate Governance for Licensed Pensions Operators 2008 issued the Pension Commission (PENCOM), Code of Corporate Governance for Insurance Industry in Nigeria 2009 issued by the National Insurance Commission (NAICOM).

Despite these reforms, fraudulent financial reporting appears to occur at a growing rate and with an increasing severity that continues to be a big challenge to the confidence of investors, financial analysts and other stakeholders. Hence, this study seeks to ascertain the effect of foreign and institutional ownership on financial statement fraud among listed non-financial firms in Nigeria. Financial statement is expected to report the real economic positions of companies. However, in preparing the financial reports, there are potential of risk of manipulations of the reported earnings that do not show the actual economic position the company. These fraudulent activities that characterize process of preparing financial reports and account are referred to as financial statement fraud. Ibadin and Oladipupo (2015) describe financial statement fraud involve the falsification of accounts and records, which, ultimately, misleads the financial statement users. In this case, the false financial reporting can be associated with market manipulation through which the manipulation of financial figures is achieved to mislead the company's investors. Expectedly, the business community at large and in Nigeria has shown serious concerns for financial statements fraud.

Some of the companies that suffered from fraudulent financial statement frauds are: Cadbury (Nig) PLC scandal has remained a reference point for fraudulent financial reporting. Gupta scandal in 2017, Samsung accounting scandal in 2018 and Wirecard accounting fraud in 2019 among others. This incidence makes investors uncertain about returns on their investment and gradually losing confidence in financial statement prepared by companies. However, financial reporting process of listed companies contains monitoring structures that ought to enhance the accountability and transparency of financial information and therefore guard investors' interests from the harmful effects of financial statement fraud. Hence, ownership structure was introduced in corporate governance codes to harmonize the interests of agent with those of the principal. Different corporate governance codes have been developed, most of which are industry-specific, such as the Code of Corporate Governance in Nigeria of 2003, 2011, 2016 and now 2018.

Unfortunately, the high rates of business failure are linked with financial statement fraud. Hence this study tends to examine the influence of foreign and institutional ownership on financial statement fraud among selected listed manufacturing firms in Nigeria. When financial statement fraud occurs, the company is not the victim but rather the instrument of fraud and firm stakeholders. The perpetrators of financial statement fraud are within the firm, holding a sufficiently senior position to be able to browbeat other employees into participating in the fraud. Despite the provisions of the above-mentioned codes of corporate governance, the role played by ownership structure in the recent collapse of some industries has spurred series of arguments. In Nigeria, studies like Peter and Aimienrovbiye, 2019; Uwuigbe, et al, 2019; Uwalomwa, Daramola and Anjolaoluwa, 2014; Ohidoa – Toluwa and Ohidoa, 2021; Ilaboya and Lodikero, 2017; Anichebe, Agbomah and Agbagbara, 2019 have studied ownership structure and financial statement fraud, but did not consider the elements of foreign and institutional ownership in relation to financial statement fraud. Some of the studies focused on consumer goods, some focused on food and beverage industry while some studies focused on Money Deposit Banks while this study will focus on non-financial listed firms on the Nigeria Exchange Group. Most of the studies cover the period of 2006 to 2009, while some covers 2011 to 2016. Researcher is not aware of any study on this tropical issue that covers the period of 2011 to 2022. Hence this study tends to fill this periodical gap.

In addition, prior research has shown that one stream of researchers found that ownership structures do not significantly affect financial statement fraud (Ohidoa – Toluwa & Ohidoa, 2021; Bello, 2011; Eneh,2018) whereas, another stream of researchers found that there is significant relationship between ownership structure and financial statement fraud (Riadi & Mita, 2018; Hamadi & Ines, 2011).

1.1 Objectives of the Study

To reconcile these inconsistencies and inconclusive findings from previous studies, this study tends to examine the effect of foreign and institutional ownership on financial statement fraud among non-financial listed firms in Nigeria. The specific objectives are to:

1. ascertain the effect of foreign ownership on financial statement fraud among non-financial listed firms in Nigeria.
2. dtermine the effect of institutional ownership on financial statement fraud among non-financial listed firms in Nigeria.

1.2 Research Hypotheses

In order to test the effect of sustainability reporting on financial performance of listed oil and gas companies in Nigeria, the following hypothesis are formulated in their null form:

Ho_1: Foreign ownership has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria.

Ho_2: Institutional ownership has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Ownership Structure

The corporate governance has been variously defined by different researchers, and these several definitions have evolved over the years. Some researchers are of the view that corporate governance is set of mechanisms proposed to mitigate agency related problems that arise owing to ownership separation and control between the managers and shareholders (Armstrong *et al.,* 2010). Ownership of companies and the crisis associated with the style of ownership has also become a center of agenda for both business leaders and regulators all over the world. Corporate governance mechanism that can moderate organization performance is ownership structure of the firm (van Essenet, Otten, & Carberry, 2015). The extent to which the board can monitor executives will be affected by ownership concentration and distribution (institutional, block, and director shareholdings) and the influence of these owners, particularly major shareholders (Sanchez-Marin & Baixauli-Soler, 2014). The greater monitoring usually associated with block ownership can be a substitute for a good incentive alignment mechanism that is able to effectively restrain executive pay and improve organizational performance (Ntim, 2013). The ownership structure is a proportion of the shares held by different parties in the equity (ordinary shares) of the company. These parties are known as the owners of the corporation, ranging from promoters, individual and institutional investors, private and public corporations and foreign owners. In this study, ownership structure is proxy with foreign ownership and institutional ownership. The proxies are discussed below.

2.1.2 Foreign Ownership

Company shares owned by foreign individuals, foreign legal entities, and foreign governments are included in foreign ownership (Meilita & Rokhmawati, 2017). Foreign ownership is ownership of shares possessed by multinationals (Mardiana, 2015). Affan et. al., (2017) specified that the greater shares owned by foreign parties, the greater the number of the external party allocated to a significant position, such as board of directors in the company to align the

interests of management and shareholders, resulting in improving the quality of financial reporting. Mardiana (2015) maintains that foreign companies have a better information system to meet internal needs as well as more substantial requests such as customers, suppliers among others. This characteristic will make foreign ownership companies have less opportunity to commit fraud. Therefore, foreign ownership will demand management to be transparent in financial reporting to maximize control and minimize fraudulent actions.

2.1.3 Institutional Ownership

Institutional ownership is the institution that trade in securities in high dimensions. Exemplars of institutional investors are banks, insurance companies; investment and pension funds are among the institutional investors. Moreover, institutional ownership is an imperative effectual exogenous control device. This set of stockholders is in a position to impact the adopted practices by companies and their existence can lead to a change in company behaviours. The ownership of shares by companies and financial institutions in a company is called institutional ownership (Paramitha & Firnanti, 2018). The measurement of institutional ownership according to Reyna (2018) is the sum of institutional ownership shares divided by the total outstanding shares.

2.1.4 Financial Statement Fraud

Financial statement serves as a tool for communicating to users and stakeholders the true and fair view of the company. Financial statement shows where the company is, and where it is heading. Weygandt and Warfield (2007) assert that financial statements are useful for the assessment of a company's liquidity, solvency, financial flexibility and performance. Financial statements have been viewed in connection with avenue to perpetuate fraudulent activities and deception. ACFE (2003) claims that financial statement fraud is the deliberate misrepresentation of the financial condition of an enterprise accomplished through the intentional misstatement or omission of amounts or disclosures in the financial statements to deceive financial statement users.

Warsharvsky (2012) identifies some examples of accounting manipulations or manipulations that can occur in the financial statement data to include but not restricted to: recording revenue too soon or with questionable quality; recording fictitious revenue; boosting income with one-time gains; shifting current expense to a different period; capitalizing otherwise currently recognizable expenses, and failing to record, or improperly reducing, liabilities, among others. Therefore, financial statement fraud is a deliberate misstatement of material facts by management in the books of accounts of a company with the aim of deceiving investors and creditors. This illegitimate task performed by management has a severe impact on the economy

because it significantly dampens the confidence of investors. Gupta and Gill (2012) explain that manipulated financial statements present a charming financial position to the investors by manipulating and concealing the financial information and qualitative disclosures of financial statements. More so, these disclosures may not apparently contain fraud indicators, however, the warning signs of fraud or manipulation can be identified by a proper understanding of the syntactic as well as the semantics of any natural language because fraudsters may create artificial indicators by using semantic of the language in the manipulated financial statements. Different studies have adopted different measures of financial statement fraud such as earnings misstatement (Agrawal &Chadha, 2005), Chen et al., 2006, and Dechow et al., 1996), accounting conservatism (Ahmed & Duellman, 2007), and abnormal accrual (Carcello et al., 2006; Peasnell, et al., 2005).

2.1.5 Beneish Model

Beneish developed the m-score model using forensic accounting principles. Proceeding from the Altman Z-Score, Messod D. Beneish, an associate professor at the Kelly School of Business, Indiana University, researched the quantitative differences between public companies that had committed financial statement manipulations and those that had not. Beneish (1999) in his study, *The Detection of Earnings Manipulation* had formulated eight mathematical ratios (M-score) to identify the likelihood of manipulations by a company. Each ratio represents the characteristics of a typical earnings manipulator. The m-score gained popularity by successfully detecting financial scandals before the public discovered them. For this study, the Beneisch M score was used to categorise the firm into manipulators (where the Beneisch M index is greater than -2.22) and non-manipulators (where the Beneisch M index is below the -2.22 benchmark).

2.2 Theoretical Review

2.2.1 Agency Theory

The term *agency relationship* is used to describe an arrangement where one entity, the principal, legally appoints another entity, the agent, to act on its behalf by providing a service or performing a particular task (Forjan, 2019).The origin of agency theory can be traced back to Adam Smith in 1776, who pointed out that people act in their own self-interest, and that we cannot expect people to watch over someone else's money with the same anxious vigilance that they would have over their own. Agency theory in corporate governance is the type of agency relationship that exists between the principal (shareholders) and agents (directors/management) of a company. The different interests of principals and agents may become a source of conflict, as some agents may not perfectly act in the principal's best interests (Investoedia, 2019).

Nonetheless, according to Sanjay (2019), despite this clear rationale of electing the board of directors, there are a lot of instances when complicated issues come up and the executives, knowingly or unknowingly, take decisions that do not reflect shareholders' best interest. According to Yegon, Sang, and Kirui (2014), agency costs can manifest in various forms, including self-serving behaviour on the part of managers who focus on status or empire-building objectives, excessive perquisite consumption, non-optimal investment decision-making or acts of accounting mismanagement or corporate fraud. The theoretical perspective that guided this study is linked to the idea that firms with an efficient corporate governance structure have better financial reporting than those without it. Therefore, this study is anchored on agency theory.

2.3 Empirical Review

Al-dhamari and Ku Waidi and Johnson (2016) studied the relation between ownership structure and reported earnings quality of banks in Nigeria for the time frame of 2005 to 2013. Using Ordinary Least Square (OLS) Regression techniques, outcomes showed that managerial ownership insignificantly effect on earnings quality. Likewise, in china, Hsu and Wen (2015) employed accrual and financial statement fraud and conclude that institutional investors give managers the opportunities to manipulate the discretionary accruals.

Boubakri and Cosset (2015) explored the association between foreign ownership and financial statement fraud of 350 listed companies from 45 countries for 2002-2012. The result showed that foreign investors reduce financial statement fraud.

Ismail (2014) urged that companies having large presence of institutional shareholders, among others, showed improved earnings predictability and less agency problems. similarly, Alzoubi (2016) indicated negative significant association between financial statement fraud and institutional ownership in Jordan. More recently, Abousamak and Shahwan (2018) suggested that institutional ownership was negatively associated with financial statement fraud in Egypt. Hassan, and Ahmed (2012) used a sample of 15 listed food and beverages companies from 2006-2010 and employed multiple regression techniques. The authors reported significant negative influence of institutional shareholders on the financial statement fraud.

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.Klai and Omri (2011) examined the importance of foreign investors and financial statement fraud in Tunisia. It was found that firms with foreign investors experienced higher financial statement fraud. Hassan, and Ahmed (2012) used a sample of 15 listed food and beverages companies from 2006-2010 and employed multiple regression techniques. The study reported

significant negative influence of institutional shareholders on the financial statement fraud among sample population.

Koh (2003) conducts an analysis of institutional shareholders and aggressive earnings practice of listed Austrian firms. The result indicates a positive significant influence of institutional investors on earnings aggressiveness, even enormous when the percentage of ownership is relatively low.

3. MATERIAL AND METHOD

The research design to be adopted for this study is ex post facto research design to examine the effect of foreign and institutional ownership on financial statement fraud among listed non-financial firms on the Nigerian Exchange Group. This is appropriate for a developing economy like Nigeria, and also, it is adequate enough to validly capture any behavioural change contrary to a cross-sectional design method usually associated with most studies in this area both in developed and developing economies. The population of the study is made up of non-financial firms listed on the Nigerian Exchange Group (NGX). As at 31st December 2022, ninety - five (95) non-financial firms were listed on the Nigerian Exchange Group floor. The choice of non-financial firms that consists of Industrial Goods, Natural Resources, Consumer goods, Health care, Agriculture, Services, conglomerate, ICT, Oil and Gas and Construction/Real estate is based on the fact that most of these companies are seriously affected by financial statement fraud. The study used purposive sampling technique to select the sample population. This sampling technique is used to enable researcher to select firms that the data can be conveniently assessed. Non-financial firms that have not operated on the floor of Nigeria Exchange Group for the period of ten years (2011 to 2022) are excluded from the population. The total numbers of non-financial firms that have their financial statements available either on their website or in the office of the Nigerian Exchange Group as at 31st December, 2022 are used as our sample population. Based on these conditions highlighted above, seventy four (74) firms are selected as our sample population. **The** secondary data was used for this study. The sources of data will include annual reports and accounts of companies, corporate website of companies and the Nigerian Exchange Group Fact books and CBN Statistical Bulletin, covering a period of 12 years (2011 – 2022).

This study used Ordinary Least Square (OLS) multiple regressions to estimate the panel data from 2011 to 2022 to examine the effect of foreign and institutional ownership on financial statement fraud of listed non-financial firms on Nigerian Exchange Group. This was carried out with the aid of E - View 10 statistical software.

3.4 Model Specification

In this study, the extent of financial statement fraud is measured using the Beneish M-score model. Beneish M-score model was developed by Beneish (1999) to estimate the probability of financial statement fraud. If the predictive M-score is greater than -2.22, benchmark it indicates a red flag meaning that there is a possibility of accounting fraud occurring in the organization, or it could also indicate a strong likelihood of the firm engaging in financial statement fraud (Beasley, 1996; Ohiokha, 2017; Okoye, 2016). The predictive M-score was calculated for the non-financial firms over the years covered by the study. The score of "1" was given if the companies had red flags indicating that there was a possibility of financial fraud and "0" if otherwise. The measurements are Days to Sales in Receivable Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Sales Growth Index (SGI), Depreciation Index (DEPI), Sales, General and Administrative Expenses Index (SGAI), Leverage Index (LVGI) and Total Accrual to Total Assets (TATA).

The study will adopt Beneish (1999) M-Score expressed in an equation as follows:

M - Score = -4.84 + 0.92 DSRI + 0.528 GMI + 0.404 AQI + 0.892 SGI + 0.115 DEPI – 0.172 SGAI + 4.679 TATA – 0.327 LVGI.

Where:

DSRI : Days' to sales in receivable Index = (Net Receivables t / Sales t) / Net Receivables t-1 / Sales t-1)

GMI : Gross Margin Index = [(Sales t-1 – Cost of Goods Sold t-1) / Salest-1] / [(Sales t – Cost of Goods Sold t) / Sales t]

AQI : Asset Quality Index = [1 - (Current Assets t + Plant, Property & Equipment t + Securities t) / Total Assets t] / [1 - ((Current Assets t-1 + Plant, Property & Equipment t-1 + Securities t-1) / Total Assets t-1)]

SGI: Sales Growth Index = Sales t / Sales t-1

DEPI: Depreciation Index = (Depreciation t-1/ (Plant, Property & Equipment t-1 + Depreciation t-1)) / (Depreciation t / (Plant, Property & Equipment t + Depreciation t))

SGAI: Sales, General and Administrative Expenses Index = (Selling General & Administrative Expense t / Sales t) / (Selling General & Administrative Expense t-1 / Sales t-1)

LVGI : Leverage Index = [(Current Liabilities t + Total Long Term Debt t) / Total Assets t] / [(Current Liabilities t-1 + Total Long Term Debt t-1) / Total Assets t-1]

TATA : Total Accrual to Total Assets = (Income from Continuing Operations t - Cash Flows from Operations t)/ Total Assets t

Foreign Ownership Company shares owned by foreign individuals, foreign legal entities, and foreign governments divided by the total outstanding shares

Institutional ownership is the sum of institutional ownership shares divided by the total outstanding shares. A functional relationship between the dependent variable and the independent variables was expressed as:

FRAUD = f(FOW,INSOW, μ) …………………Eqn 1.

Equation 1 was transformed into econometric forms as:

FRAUDit = β0+β1 FOWit+β2 INSOWit + μ**it……………**Model1

Where;

FRAUD = Beneish M-score for model 1,

FOW = foreign ownership

INSOW = institutional ownership

β0 is the constant, β1, β2 are the coefficients of the explanatory variables for the model; μ is the error term that captures the stochastic variables in the model; i = is the collection of the firms; and t = is the time factor. The *apriori* expectations are stated as: β1>0; β 2>0; β 3>0; β 4>0; β 5>0;

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Description Statistics

Table 1: Descriptive Analysis of the Variables

	BENI	*FORO*	*INSO*
Mean	0.940492	41.07359	45.89394
Median	1.000000	40.00000	51.00000
Maximum	10.41000	94.00000	98.00000
Minimum	-8.790000	0.000000	0.000000
Std. Dev.	0.702917	21.65776	26.89480
Skewness	-2.780669	0.184905	-0.163528
Kurtosis	117.9740	2.698271	1.919373
Jarque-Bera	510123.3	8.770280	49.07674
Probability	0.000000	0.012461	0.000000
Sum	869.0150	37952.00	42406.00
Sum Sq. Dev.	456.0477	432941.0	667633.6
Observations	924	924	924

Source: E-views, 10 Outputs

The mean value for the variable Beneish Index (BENI) is 0.940492, with a maximum of 10.41 and a minimum of -8.79. The standard deviation is 0.702917, and the skewness is -2.780669, indicating that the distribution may be negatively skewed. The high kurtosis value of 117.9740 and the low probability of the Jarque-Bera test (0.0000) suggest that the distribution is not normal and has more extreme values at the tails than a standard normal distribution. The mean value for the variable Foreign Ownership (FORO) is 41.07359, with a maximum of 94 and a minimum of 0. The standard deviation is 21.65776, and the skewness is 0.184905, indicating a roughly symmetric distribution. The kurtosis value of 2.698271 is slightly higher than normal, but the probability of the Jarque-Bera test is still low, suggesting that the distribution is sufficiently normal..

The mean value for the variable Institutional Ownership (INSO) is 45.89394, with a maximum of 98 and a minimum of 0. The standard deviation is 26.89480, and the skewness is -0.163528, indicating a roughly symmetric distribution. The kurtosis value of 1.919373 is relatively low, and the probability of the Jarque-Bera test is low, suggesting that the distribution is normal.

4.2 Test of Hypotheses

Table 2: Test of Hypotheses

Dependent Variable: BENI

Method: Robust Least Squares

Date: 10/26/23   Time: 13:45

Sample: 1 924

Included observations: 924

Method: MM-estimation

S settings: tuning=1.547645, breakdown=0.5, trials=200, subsmpl=6,

refine=2, compare=2

M settings: weight=Bisquare, tuning=4.684

Random number generator: rng=kn, seed=1567408895

Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
FORO	0.009858	0.000336	29.35469	0.0000
INSO	0.003216	0.000412	7.803561	0.0000
C	0.066570	0.027897	2.386316	0.0170

Robust Statistics

R-squared	0.018908	Adjusted R-squared	0.013564
Rw-squared	0.615033	Adjust Rw-squared	0.615033
Akaike info criterion	1558.785	Schwarz criterion	1590.775
Deviance	44.41246	Scale	0.169283
Rn-squared statistic	1262.709	Prob(Rn-squared stat.)	0.000000

Non-robust Statistics

Mean dependent var	0.940492	S.D. dependent var	0.702917
S.E. of regression	0.679034	Sum squared resid	423.2784

Source: E-views, 10 Outputs

The output of the regression analysis on the effect of foreign ownership, institutional ownership, on financial statement fraud is shown in Table 2 above. The R-squared (R^2) value is a statistical measure that indicates the proportion of the dependent variable's variation (in this case, financial statement fraud) that is explained by the independent variables (foreign ownership, institutional ownership) in the regression model. The R-squared value is 0.018908 which suggests that the independent variables in the model explained or predicted only about 2% of the variations in financial statement fraud. In other words, the variables examined in the study do not have a very high joint explanatory impact on financial statement fraud. However, this regression output was accepted based on the Rn-squared statistic of 1262.709 which is significant. The Prob (Rn-squared stat.) value was used to test the statistical significance of the Rn-squared statistic. Given that the Prob (Rn-squared stat.) value of 0.000000 is less than 0.05, it suggests that foreign ownership and institutional ownership have a joint significant effect on financial statement fraud, despite the very low R-squared value. We proceed to testing the two null hypotheses using the coefficients and the respect *p*-values.

4.2.1 Hypotheses One

H$_0$: Foreign ownership has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria.

The coefficient for foreign ownership is 0.009858, which suggests that a one-unit increase in foreign ownership will result in a 0.009858-unit increase in financial statement fraud on average. Since the coefficient is positive, it indicates that foreign ownership may be associated with a higher level of financial statement fraud. The probability value of 0.0000 indicates that

the coefficient is statistically significant at 0.05 significance level. Therefore, the study provides strong evidence for the acceptance of the alternate hypothesis that foreign ownership has a significant positive effect on financial statement fraud.

4.2.1.1 Decision: Based on the analysis above, the Null hypothesis (Ho) is rejected while alternate hypothesis (Hi) is accepted; which state that foreign ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria. This study is consistent with Usman, Akpan, Luka and Abolugne (2020); Siraji and Nazar (2021); Dong et al (2020); Pambudi (2020); Piosik and Genge (2019) results revealed that foreign ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria.

4.2.2 Hypotheses Two

H_0:   Institutional ownership has no significant effect on the financial statement fraud among non-financial listed firms in Nigeria

The coefficient for institutional ownership is 0.003216, meaning that a one-unit increase in institutional ownership tends to result in a 0.003216-unit increase in financial statement fraud on average. Since the coefficient is positive, it suggests that higher levels of institutional ownership may be associated with higher levels of financial statement fraud. The probability value of 0.0000 indicates that the coefficient is statistically significant at 0.05 significance level. Therefore, we accepted the alternate hypothesis and then concluded that the effect of institutional ownership on financial statement fraud is significant and positive.

4.2.1 Decision: Based on the analysis above, the Null hypothesis (Ho) is rejected while alternate hypothesis (Hi) is accepted; which state that institutional ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria. This study is consistent with Abousamak and Shahwan (2018); Waidi and Johnson (2016); Nguyen, (2016) Hsu and Wen (2015) results that revealed institutional ownership has a significant positive effect on financial statement fraud.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of foreign and institutional ownership on financial statement fraud among non-financial listed firms in Nigeria. To the best of our knowledge, this is the first study that provides empirical evidence on effect foreign and institutional ownership on financial statement fraud among non-financial listed firms in Nigeria for the period of 2011 to 2022. Based on the results and analysis above, this study indicates that foreign ownership and institutional ownership have significant effect on the financial statement fraud of non-financial

firms listed on the Nigerian Exchange Group (NGX). Based on the above findings we hereby recommend the following:

i. Since foreign ownership has significant effect on financial statement fraud, regulatory authorities like Financial Reporting Council of Nigeria, and Nigeria Exchange Group (NGX) should make policy that will encourage foreign investors to own more shares in non-financial listed firms because foreign ownership will demand management to be transparent in financial reporting to maximize control and minimize fraudulent actions.

ii. Since institutional ownership has significant effect on the financial statement fraud among non-financial listed firms in Nigeria companies should encourage other companies and or financial institutions to own shares in their company because it will help to strengthen financial reporting quality and reduce financial statement fraud.

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EFFECT OF PRUDENTIAL GUIDELINES ON THE FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT:

This study examined the effect of prudential guidelines on the financial performance of deposit money banks in Nigeria. The specific objective of the study were to: examine the impact of capital adequacy regulation on the financial performance of DMBs in Nigeria; ascertain the impact of liquidity regulation on the financial performance of DMBs in Nigeria and assess the impact of credit risk regulation on the financial performance of DMBs in Nigeria. The study was anchored on agency and liquidity preference theories. The study adopt multivariate regression estimation analysis, correlation analysis and descriptive statistics. The study used Capital Adequacy Regulation (CAR), Liquidity Regulation (LR) and Credit Risk Regulation (CRR) as a proxy for Prudential Guideline and Return on Asset (ROA) and Return on Equity (ROE) as a measure for Financial Performance. The result show that CAR has a negative but insignificant effect on ROA, but has a positive and significant effect on DMBs' ROE in Nigeria. LR is negatively correlated with DMBs financial performance in Nigeria. CRR has a detrimental negative effect on DMBs' financial performance in Nigeria. The study recommended among other things that the minimum capital requirement of DMBs in Nigeria should be reviewed on a regular basis to ensure that it remains at an optimal level, and Nigerian banks should be capitalized to enable them to access cheaper sources of funds, resulting in increased profit margins. This would go a great way toward restoring public trust in banks, as the latter would be better equipped to provide consumers' credit demands while also safeguarding depositors' funds.
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1. INTRODUCTION

The Nigeria banking sector has witnessed a boom leading to many changes in the areas of regulations and reforms; the number of institutions, the structure of ownership, depth and breadth of operations in an attempt to reposition the industry to play its financial intermediation role

efficiently and profitably (Dogarawa, 2011). The factors that led to the creation of a fragile financial system that extremely ends into crisis by the global financial meltdown include: Macro Economic instability caused by large and sudden capital outflows, major failures in corporate governance of banks, lack of investor and consumer sophistication, inadequate disclosure and transparency about the financial position of banks, a critical gap in prudential guideline and uneven supervision and enforcement (Sanusi, 2010). The banking sector has been one of the most regulated industries in Nigeria, the wave of regulations in the industry can be traced back to 2004 when the Central Bank of Nigeria (CBN) embarked on a policy-induced consolidation programme by increasing minimum bank capitalization from 2 billion to 25 billion Naira. This consequently led to a reduction in the number of operating banks, from 120 to 25 by 2005 (Babalola, 2011). The consolidation programme resulted in dramatic growth and internationalization of the Nigerian banking sector, attracting unprecedented and sudden foreign capital inflows into the stock market (Sarah, 2014). However, the 2008/2009 financial crisis undermined some of the gains of the consolidation programme as most banks were significantly exposed to maturity mismatch and liquidity problems, because of the drying-up of capital inflows and portfolio divestments from banking equities on the stock market, which created a bubble in banking stocks (Foluso, 2014). Deposit Money Banks (DMBs) are resident depository corporations and quasi-corporations which have liabilities in the form of deposits payable on demand, transferable by cheque or otherwise usable for making payments.

DMBs play a vital function in the economic resource distribution of countries. For survival and growth, banks need to be profitable, which has a serious impact on economic growth. Good financial performance promotes high shareholders returns and further investment, poor financial performance led to failure and financial crunch which have undesirable impacts on economic growth (Ongore & Gemechu, 2013, Wuave, Yua &Yua, 2020). Banks play an important and sensitive role in a developing nation hence their performance directly affects the growth, efficiency, and stability of the economy (Oladipupo & onotaniyohuwo, 2011). DMBs are the major holder of the nation's financial assets which presents the largest potential risk for financial and reputational losses in the event of corporate failure and distress; To be efficient, they must be regulated because of the failure of the market system to recognize social rationality and the tendency for the market participants to take undue risk which could impair the stability and solvency of their institution (Omoye & Aniefor, 2016).

The experiences of many countries show that regulation and supervision are essential for a stable and healthy system and the need becomes greater as the number and variety of banks increase and the market in which they serve depend on two key factors: the degree of competition that exists

among the institutions and the nature of the regulations to which they are subject to, therefore there are needs to examine ways to increase efficiency through competition and a more flexible regulatory framework (Ojo, 2010). To avoid bank failure, adequate attention must be paid to various financial performance indicators. It was in this regard that CBN Published a circular in 1990 that resulted in the Prudential Guidelines for Licensed banks which aimed at ensuring a stable, safe and sound banking system and are meant to serve as a guide to ensure a prudent approach in the creation of high-quality loans assets and its associated earning streams. In addressing the challenges faced by Banks the CBN introduced a four-pillar reform programme in 2010 tailored towards; enhancing the quality of banks, establishing financial stability, enabling healthy financial sector evolution, and ensuring the financial sector contributes to the real economy (Sanusi, 2010).

A prudential guideline is a measure initiated by the Central Bank of Nigeria to strengthen its regulatory and supervisory framework. The decision to review and enhance the 1990 Prudential Guidelines was informed by the need for adequate supervision to promote the safety and soundness of the banking system and the financial system. The 1990 Prudential Guidelines were constrained because they did not cover certain sector-specific credits; they were silent on the need for a moratorium associated with maturities in credits to sectors requiring long gestation periods. As part of the initiative to enhance the quality of banks, the CBN undertook a review of the 1990 Prudential Guidelines in July 2010 which aim is to address various aspects of DMBs operation such as Risk Management, Corporate Governance, Know your customer (KYC) and Anti-money Laundering, project financing, object financing, real estate and commercial estate, Small and Medium Enterprises financing, Agriculture financing, Microfinance loans, retail financing, loan loss provisioning and peculiarities of different loan type and finance to different sectors using differs financial soundness indicators which involves Liquidity, Capital Adequacy, Asset Management, earnings/ profitability, exposure to foreign Exchange Risk, leverage and debt service capacity among others (CBN, 2010).

However, the CBN prudential Guideline outline seven financial soundness indicators that are used to measure the true health of each financial institution. The indicators are Capital Adequacy Regulations, Asset Quality Regulation, Earnings/profitability regulation, liquidity regulation, Exposure to FX risk regulation, leverage regulation, and debt service capacity regulation. The financial performance of DMBs globally is the hub and the pillar of every nation's economic and financial system, hence, the stability and underlying economic performance of the banks is vital and paramount to the macroeconomic development of a nation. The assessment of these banks as to how they are managed, and their performance can be best made through their financial statement

and asset quality. Hence the quality of financial statement prepared and presented and the quality of asset given by them goes a long way in fostering public confidence in the industry as well as to evaluating their performance (Adebisi, 2014). DMBs prudential guidelines aim to prevent banks' failure by establishing standard policies, procedures, disciplines, and practices that would ensure the easy and reliable valuation of banks which has left many questions as to whether or not the implementation has made any significant impact on the financial performance of DMBs in Nigeria. Over the years, DMBs in Nigeria has faced numerous challenges such as under-capitalization, slow branch expansion and weak management, insider fraud abuse and imprudent lending, lack of technical skill, banking knowledge and illiquidity related to their inability to meet customer cash withdrawals. Thus government, shareholders and other stakeholders continue to show considerable concern about how they are performing.

The financial performances of DMBs are affected by inadequate capital, illiquidity, and Non-Performing Loan (NPL) among others. Thus, making it difficult to attract investors and lenders thereby affecting their ability to purchase other financial resources. Illiquidity affects a bank's earnings, working capital and in extreme circumstances may result in distress, high impaired loans, and poor investment portfolios. Banks are expected to maintain adequate capital to meet their financial obligations, operate profitably and contribute to promoting a sound financial system. Inadequate capital was attributed to the low level of initial capital, affected inflation and the large portfolio of NPL maintained by some banks. Thus, the introduction of Prudential Guidelines requires suspending interest due but unpaid on classified assets and provisions for non-performing credit facilities (Babalola, 2011). This study intends to examine the impact of Prudential Guidelines on the Financial Performance of DMBs in Nigeria. Specifically, the study intend to: examine the impact of capital adequacy regulation on the financial performance of DMBs in Nigeria; ascertain the impact of liquidity regulation on the financial performance of DMBs in Nigeria and assess the impact of credit risk regulation on the financial performance of DMBs in Nigeria.

1.1 Objectives of the Study
The broad objective of this study is to investigate the effect of Prudential Guidelines on the Financial Performance of Deposit Money Banks in Nigeria. The specific objectives are to:

1. examine the effect of capital adequacy regulation on the financial performance of DMBs in Nigeria;
2. ascertain the effect of liquidity regulation on the financial performance of DMBs in Nigeria;
3. assess the effect of credit risk regulation on the financial performance of DMBs in Nigeria.

1.2 Research Hypotheses

Given the objective stated above, the following null hypotheses form the basis for the study:

Ho[1]: Capital adequacy regulation has no significant effect on the financial performance of DMBs in Nigeria.

Ho[2]: Liquidity regulation has no significant effect on the financial performance of DMBs in Nigeria.

Ho[3]: Credit risk regulation has no significant effect on the financial performance of DMBs in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Prudential Guidelines

Sauda et al. (2017) observe that prudential guidelines are forms of government procedures that subject banks to certain requirements, boundaries and strategies that create transparency between the banks, government, and the customers. The absence of these regulations can affect the banking system, but good rules can impact the banking system drastically. Kiplagat and Kalui (2020) observed that prudential regulation forms a critical part of the operations of banks as it protects investors, consumers and ensures systemic stability they are required to maintain adequate capital, liquidity, asset quality, credit risk and management efficiency. These regulations comprise adherence and enforcement of the rules and policies sets and compliance of the critical banks' asset management policies, financial capacity of the banks and its managements (Diana, 2018). The CBN require the DMB to exercise particular care in their operations so that specified outcomes are realized. Hence, the set of laws, rules and regulations that are designed to minimize the bank risk; ensure the safety and soundness of both individual institutions and the system which establishes limits and constraints on the banking sector, it is an element in preventing, limiting or stopping the damage caused by poor management.

2.1.2 Deposit Money Banking

The generic name "Deposit Money Bank" was adopted for all Commercial and Merchant banks operating in Nigeria during the universal banking era of 2001. Banks owe some basic responsibilities to their communities; the traditional responsibility in form of financial intermediation must be efficiently delivered to retain the confidence of their clients (Ndifon and Sackey, 2014). Banks tend to have wielded tremendous influence on every nation's financial landscape which makes them relevant in the focus of monetary authorities in the task of managing the country's economy (Obamuyi, 2009).

DMBs provide a range of retail financial services to their clients which could comprise opening cheque current accounts and intermediation services among others (Somayo, 2008). DMBs are central in financing economic activity in any economy, most especially the developing countries like Nigeria. The DMBs have played a significant role through their crucial functions of financial intermediation, provision of efficient payment system and facilitating the implementation of monetary policies thus, the government have evolved an efficient banking system not only to promote efficient intermediation but also to protect depositor fund, encourage competition in the system and protection against systemic risk and collapse. For DMBs to be efficient, they must be regulated and supervised (Dauda, 2015).

2.1.3 Bank financial performance indicator

2.1.3.1 Return on Asset (ROA)

ROA is a ratio that indicates profitability, efficiency and Income to the total assets. It measures the ability of banks to generate income by utilizing liquid at their disposal and how the management is generating a net income from all the resources (Khrawish, 2011). Wen (2010) asserts that higher ROA shows that the bank is more efficient in using its resources which means it is good in translating assets into profit. ROA provides good information about a firm's financial performance in terms of using assets to create income (Car cello et al., 2000). It also measures a bank's financial performance that corrects the size of the bank which is a useful measure of how well a bank manager is doing on the job because it indicates how well a bank's assets are being used to generate profits. Pandey (2009) points out that the appropriate measure of profit is profit before tax because it shows earnings arising directly from the commercial operations of the business without the effect of financing. Given this backdrop, this study will measure ROA as Net income divided by total assets as one of the proxy measures of bank performance.

2.1.3.2 Return on Equity (ROE)

ROE is a financial ratio that refers to how much profit a bank earned compared to the total amount of shareholders' equity invested or found on the balance sheet which is seen as shareholders return on their investment (Vincent & Gemechu, 2013). A bank that has a high return on equity is more likely to be capable of generating cash internally thus, the higher the ROE the better the bank in terms of profit generation. Khrawish (2011) observes that ROE is the ratio of Net Income after Taxes divided by Total Equity Capital. It represents the rate of return earned on the funds invested in the bank by its stockholders. It reflects how effectively a bank's management is using shareholders' funds. Thus, the better the ROE the more effective the management is in utilizing the shareholders' capital.

2.1.4 Credit risk regulation

Financial institutions are exposed to a variety of risks among them are interest rate risk, foreign exchange risk, political risk, market risk, liquidity risk, operational risk and credit risk but Credit risk is the most significant risk faced and the success of DMBs depends on accurate measurement and efficient management of this risk to a greater extent than any other risk. Therefore, it is a serious threat to the performance of Banks. To tackle the issues of credit risk regulation in Nigeria, the CBN entered into an agreement in 1987 known as Basel I and Basel II accords. Both accords emphasized the importance of capital adequacy for mitigating credit risk which cushions the effects of sudden financial losses on banks (Iwedi & Onuegbu, 2014). Credit risk explains an assessment of the possibility of loan default coupled with an assessment of its marketability (Molefe & Muzindutsi, 2015). The quality of asset evaluates the prices through which a bank can trade a loan to a different party as the borrower determines, this asset quality comprise long term and short-term assets quality, credit assortment alongside additional investments. The biggest component of bank assets is loans and makes up the utmost degree of threat to their capital (Nyanga, 2012). Real estates, off-balance-sheet components, outstanding cash from accounts and premises represent other components having a likely influence on the worth of assets.

Accordingly, Gostineau (1992) posits that credit risk is the possibility of losing the outstanding loan partially or totally due to credit events; Credit events comprise bankruptcy, failure to pay a due obligation, credit rating change and restructure. Basel Committee on Banking Supervision (1999) explains credit risk as a potential that a bank borrower fails to meet its obligations following agreed terms, Dima and Orzea (2009) indicate two primary sorts of credit risk that a portfolio or position is presented to be specific, credit default risk and credit spread risk. Chen and Pan (2012) identify the division of Bank Credit risks as default risk, exposure risk and recovery risk. Heffernan (1996) observes that credit risk is an uncertainty that an asset or a loan becomes irrecoverable in the case of outright default or delay in the servicing of a loan. Bessis (2002) ascertains that it is critical since the default of a small number of important customers can generate large losses which can lead to insolvency, thus DMBs need to manage credit risk mainly NPLs as it is very crucial for banks survival and profitability (Juliana 2017). Coyle (2000) says credit risk is a loss from the refusal or inability of credit customers to pay what is owed in full and on time. DMBs employ different credit risk management policies majorly determined by; ownership of the bank, credit policies of banks, credit scoring systems, banks' regulatory environment and the calibre of management of the banks (Nworji, Olagunju & Adeyanju, 2011). Basel Committee on Banking Supervision (2000) identify the Principles for Assessment of Banks' Management of Credit Risk thus; Establishing an appropriate credit risk environment, operating under a sound

credit granting process, maintaining an appropriate credit administration, measurement and monitoring process, ensuring adequate controls over credit risk, bank Supervisors maintaining effective system to identify, measure, monitor and control credit risk as part of an approach to risk management and conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the granting of credit and Supervisors considering setting prudential limits to restrict bank exposures to single borrowers or groups of connected counterparties and Establishing an Appropriate Credit Risk Environment.

Machiraju (2008) posits that bank centred on the five Cs standards in the estimation of borrowers' financial soundness to reduce the credit risk which comprises: Character (borrower's personal qualities; trustworthiness and responsibility), Capacity (borrowers' capacity to service debt), Capital (the monetary state of the borrower), Collateral (The resources portable property, sworn against the execution of a commitment) and Condition (the financial circumstance). Therefore, credit risk guidelines are policies that coordinated activities for managing the uncertainty of banks through the incorporation of risk management tactics concerning the organization's objectives which affects financial instruments other than loans.

2.1.5 Liquidity Regulation

Liquidity regulations are financial regulations designed to ensure that banks have the necessary assets on hand to prevent liquidity disruptions due to changing market conditions that are related to reserve requirement but focus on specific liquidity risk of assets that are held and it was imposed to negate liquidity risks of banks that played a prominent role in financial crises. Liquidity regulation is also useful since it is effective at managing liquidity stress and its macroeconomic costs are very modest compared to capital regulation. Bank liquidity shows the ability of banks to ensure the availability of funds to always meet financial commitments or maturing obligations at a reasonable price. Bank liquidity entails monetary resource that is used to satisfy the withdrawal needs of the customers (Wasiuzzaman & Tarmizi, 2010). Jagongo & Makori (2013) say, it is the responsibility of all banks to encounter their fiscal duties; banks convert their current assets into the shape of cash to pay the due obligations, The banks having less amount in current assets will face difficulties in ongoing its processes and if the amount of currents assets is too high, this displays that the return on investment for the bank is not in the unspoiled state.

2.1.6 Capital Adequacy Regulation

The capital adequacy regulation is an international standard to safeguard the banks by setting a risk-sensitive minimum capital requirement (Aysa & Razali, 2020). According to the Capital Adequacy Standard (CAS) set by the Bank for International Settlements (BIS), banks must have

a primary capital base equal to at least to 8 per cent of their assets Since bank-specific characteristics differ in Nigeria, CBN set an arbitrary N25 billion minimum capital bases after considering all capital adequacy variables (total assets, owners' funds, customers' deposits and loans and advances) to forestall all future financial downturns (Jalloh, 2017). Bank management desires to make a profit which is the essential requirement for conducting any business (Davis & Zhu, 2011)**.** Insufficient capital requirements might result in investors and depositors being cautionary by refraining from dealing with the bank which will therefore harm the profitability of the bank. Gale (2010) and Kerwer (2005) say the increase in minimum capital requirements reduces the risk of bank distress which will then result in increased profitability.

In Nigeria, the Central Bank being the apex regulator of the banking industry increased the minimum capital base for DMBs to twenty-five billion Naira in 2005. This policy popularly referred to as the recapitalization or consolidation policy resulted in the reduction of Nigerian banks from eighty-nine banks to twenty-five bigger, stronger, and more resilient financial institutions (Williams, 2011). However, recapitalization may increase the capital adequacy in the short run but may not necessarily increase it in the long run as banks may increase their risk portfolio at the expense of their capital base as a result of increased liquidity and overall financial position (Abba, 2018) Capital adequacy protects banks against excess leverage, insolvency and keeps them out of difficulty. An appropriate level of capital adequacy ensures that the bank has sufficient capital to expand its business while its net worth is enough to absorb any financial downturns without becoming insolvent.

2.2 Theoretical Review
2.2.1 Agency theory
Agency theory was developed by Jensen and Meckling (1976) to address limitations that face the relationships between principals and agents and how they can be tapped to govern cooperation to realize its goal. Shareholders hire managers to control their finances by making them productive, there is bound to be a challenge where the managers feel their efforts are not well rewarded whereas the shareholders might feel that the managers are employees whose reward should only be income for services rendered (Bamberg & Spremann, 1987).

Jensen and Meckling (1976) model on agency costs and ownership structure holds a central role in evaluating the financial performance of an organization. The shareholders who are the owners of capital have no time in the day to day running of the organization hence they hand over the duties to run the organization to the agents who are the Chief Executive Officer (CEO) and the managers. This theory separates ownership from control, and the attendant agency problem

(Wambua, 2011). If DMBs shareholders are satisfied then it will attract more investors, create customer loyalty and in the long run affect the financial performance positively. The theory informed the first specific objective in the study that tends to relate Capital Adequacy Regulation with the Financial Performance of DMBs in Nigeria.

2.2.2 Liquidity Preference Theory

Liquidity Preference Theory was proposed by John Maynard Keynes in 1936. The theory states that the demand for money is not to borrow money but the desire to remain liquid; all factors held constant people prefer to hold cash rather than any other form of assets and they will demand a premium for investing in illiquid assets such as bonds and stocks. It contends that the compensation demanded parting with liquidity increases at the period of getting liquidity back. The theory dominates the central concepts in finance in its application on liquidity as the Central Banks set interest rates to control the circulation of liquid through the demand for money, The theory explains the existence of three motives of holding cash as the motive to keep cash for daily transactional need, the motive to keep cash for precautionary tendencies and finally the speculative motive to take advantage of opportunities (Bibow, 1995).

The analogy of liquidity preference theory is imperative on the assets and liabilities functions of DMBs, as it explains why banks will undertake to compensate for liabilities and provides the essence of why banks will seek compensation for their assets. This compensation describes the interest rate factor that is affected by the rate of liquidity in DMBs. The theory informed the second objective of the study that relates Liquidity Regulation to the Financial Performance of Deposit Money Banks in Nigeria.

2.2.3 Portfolio Theory

Portfolio theory was proposed by Harry Max Markowitz in 1952 in an article that drew attention to a general practice of risk diversification and demonstration on how investors can reduce their standard deviation of Portfolio return by selecting securities that do not move exactly together (Akinsulire, 2011). The theory was extended and refined by Sharpe (1934), Litner (1983), Tobin (1918), and others in the subsequent decades as it plays an important role in bank performance and asset studies (Nzongang & Joseph, 2006). The theory is a form of diversification, under certain assumptions and for specific quantitative definitions of risk and return and explains how to find the best possible diversification strategy. It looks at the success of reducing risks and focuses on the risk elements that banks face such as liquidity risk and asset quality. Asset quality remains one of the biggest risks that banks face and its concentration has a great impact on profitability (Margrabe, 2007).

Therefore, Portfolio theory underpins the study of prudential guidelines and financial performance as measured by Return on Asset (ROA) and Return on Equity (ROE), thus Bank investors or Shareholders construct their portfolio based on the financial performance of banks and diversify this portfolio by increasing their investment through purchase of more shares to the bank. Bank management makes relevant decisions towards the improvement of financial performance through diversifying their portfolio; consequently, improved financial performance enables investors to diversify their portfolio by increasing their investment through the purchase of more shares in the bank.

2.3 Empirical Review

Studies have been carried out on prudential guidelines and financial performance of DMBs; some of these studies are as follows: Kplagat and Kalui (2020) evaluated the effect of prudential regulations on the financial performance of commercial banks in Kenya. The scope of the study was all 43 commercial banks operating in Kenya within the period 2013 and 2017. The study adopts a correlation research design and a multiple regression model to determine the linear relationship between prudential regulations and profitability of commercial banks with the aid of the secondary data extracted from the CBK website. The result revealed that liquidity management, credit risk management and management efficiency have a significant effect while capital adequacy and asset quality have no significant effect on the performance of commercial banks in Kenya. However, this study only restricts in scope to Kenya, whereas the current focus is on Nigeria Deposit Money Banks.

Mugo and Shiundu (2020) examined the consequence of the prudential system on the performance of Kenyan banks. The explicit goal was to examine capital adequacy, liquidity and credit risk regulation relating it to the moderating effect of bank size on the interlink between prudential regulations and financial performance of banks with relevant theory such as Stakeholder Theory, Liquidity Preference and Market Power concepts. A casual design of the research was utilized and the population target of 42 banks from 2013 to 2018. The study used secondary data, the analysis applied both descriptive and panel regression analysis using STATA. The result revealed that regulation of capital adequacy had a statistically significant influence at p-value ($p=0.000<0.05$), regulation of liquidity had a statistically significant at p-value ($p=0.035<0.05$), credit risk is a significant determiner of financial performance of commercials banks in Kenya ($p=0.014<0.05$) and it is founded that bank size did not significantly influence the relationship between prudential regulations and financial performance ($p=0.289>0.05$). The only sampled population randomly

without evaluating if the banks are listed or not and other relevant criteria and the observation were too, rendering the result irrelevant.

Uche et al (2018) appraised the effect of liquidity on the financial performance of DMBs in Nigeria. A sample of five banks was used with Secondary data collected for ten years period (2011-2016) using multiple regression analysis. Results revealed that Liquidity has a positive and significant effect on banks' profitability ratios and has a positive and significant effect on Return on Capital Employed (ROCE).

Gabriel et al (2018) investigated the determinants of capital adequacy of DMBs in Nigeria. The study analyzed the bank-specific determinants using balanced panel data collected from financial statements of 12 selected quoted banks for ten years 2005-2014. ROA was found to be the most important determinant of CAR, having recorded the highest coefficient in the multiple regressions result was indicated that Nigerian banks' risk portfolio is quite high, and ROA is quite low. Unlike the study of Gabriel that examine the determinants of capital adequacy as a ratio, the current study tends to focus on the regulation that governs capital adequacy in a sampled bank.

Amahalu et al (2017) investigated the effect of capital adequacy on the financial performance of quoted DMBs in Nigeria for a period of five years (2001-2015). The study used secondary data obtained from fact books, annual reports and account of the DMBs under study. The data were subjected to statistical analysis using Pearson Coefficient of Correlation, Multiple Regression Analysis, Variance Inflation Factors (VIF), Multicollinearity, Heteroskedasticity test and Hausman test. The result revealed that a positive and significant relationship between Capital Adequacy and Financial Performance and it was empirically verified that Capital Adequacy has a statistically significant effect on Financial Performance on DMBs at a 5% level of significance.

Jalloh (2017) examined the impact of capital adequacy on the performance of Nigeria Banks using the Basel Accord Framework. The specifics for the study were total assets, owners' funds, customers' deposits and loans and advances on banks' performance in Nigeria. Data were collected using the cross-panel methodology from nine DMBs with significant foreign operations. The results of the Ordinary Least Square (OLS) regression showed that 76 per cent of the variations in Profit After Tax (PAT) were caused by capital adequacy and unit change in Total Assets (TA), Loans and Advances (LA), Customer Deposits (CD) and Owners' Capital (OC) led to 4.1, 1.6, 3.7 and 1.7 per cent change in PAT respectively.

Giami and Obari (2017) investigated the interrelationship between liquidity and corporate performance of banks in Nigeria from 1984 to 2014, Cash Reserve Ratio, Liquidity Ratio and Loan-to-Deposit Ratio were proxies for liquidity; Return on Shareholders' funds as the proxy for

performance. These were subjected to OLS Regression, Johanson Cointegration, Granger Causality test and Error Correction Model and the study revealed that banks' reserve ratio and loan-to-deposit ratio negatively impacted the banks' performance within the period under review and the DMBs performance maybe because of the industry structure.

Aigbogun (2011) investigated the impact of prudential guidelines on services and performance of CB in Nigeria which set out to examine prudential guidelines on bank safety and confidence of Nigerians. The study employed both primary and secondary sources of data from samples derived from the populations of selected CB and data were analyzed using the Chi-Square (X2) analytical technique. Findings revealed that there is an increased need for bank supervision by the regulatory bodies and also prudential guidelines have helped to check NPL, ensure proper scrutiny of loan proposals and enhanced regulatory activities in the banking industry. The present study tries to deal with the proxies that are related to Deposit Money Bank directly in Nigeria thereby dealing with research gaps.

3. MATERIAL AND METHOD

The methods adopted in this study require the use of empirical analysis of multivariate regression estimation analysis, correlation analysis and descriptive statistics. The purpose of constructing this models is to find out the impact of Prudential Guidelines and Financial Performance of DMBs in Nigeria using Capital Adequacy Regulation (CRR), Liquidity Regulation (LR) and Credit Risk Regulation (CRR) as a proxy for Prudential Guideline and Return on Asset (ROA) and Return on Equity (ROE) as a measure for Financial Performance.

Thus, The Multivariate regression model for the study is specified as:

Model 1: $ROA_{1it} = \beta_{01} + \beta_1 CAR_{1it} + \beta_2 CRR_{1it} + \beta_3 LDR_{1it} + ei_{1it}$

Model 2: $ROE_{2it} = \beta_{02} + \beta_1 CAR_{2it} + \beta_2 CRR_{2it} + \beta_3 LDR_{2it} + ei_{2it}$

Where:

ROA_{1it}	Return on Asset for DMBs i in time t
ROE_{2it}	Return on Equity for DMBs i in time t
CAR_{it}	capital adequacy regulation for DMBs i in time t
CRR_{it}	credit risk regulation for DMBs i in time t
LDR_{it}	Liquidity regulation for DMBs i in time t
e_{it}	Error terms
β_{01}	Intercept
$\beta_1 \text{-} \beta_2$	Model coefficient

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistics

The descriptive statistics are presented in table 1 below:

Table 1: Descriptive Statistics

	ROE	ROA	LDR	CRR	CAR
Mean	0.138194	0.022191	0.620380	1.801334	0.313591
Median	0.144900	0.021400	0.852600	1.118693	0.160000
Maximum	0.394500	0.226519	62.04310	9.531753	2.184775
Minimum	-0.260800	-0.095318	0.309900	0.000000	0.050000
Std. Dev.	0.109717	0.028390	6.080533	2.281580	0.424535
Skewness	-0.063100	2.396255	9.008818	1.639119	2.663376
Kurtosis	3.545222	7.098101	86.80786	5.541999	9.553901
Sum	16.16868	2.596342	189.5845	210.7560	36.69010
Sum Sq. Dev.	1.396376	0.093497	4288.854	603.8507	20.90668
Observations	117	117	117	117	117

Source: Author's computation from E-views 10 output, 2023

Table 1 presents the descriptive statistics for the dependent variables (ROA, ROE) and independent variables (LDR, CRR, CAR). The table indicated a mean value of 0.138 (13.8%) for ROE. The minimum and maximum values for ROE during the study period are -0.26and 0.39 respectively. The mean score of 13.8% for ROE revealed that for every N100 invested in the DMBs the shareholders made an average return on investment of N13.8 within the study period. The ROA is observed to have a mean of 2.21%. The maximum and minimum values were -9.5% and -22.7% respectively. Which indicates that on average, for a period of twelve (12) years the ROA stood at 2.21%. This result indicates that for every N100 invested in asset generated an average of N2.21k earned for the sampled DMBs for the period under study.

Table 1 further indicated a mean value of 0.62 for LDR. The minimum and maximum values of LDR during the study period are 0.31 and 62.04 respectively. The mean score revealed that LDR of the sampled DMBs stood at 62%. The CBN maintained that all DMBs will have to maintain a minimum liquidity ratio of 30% in line with regulatory requirements. However, since the selected DMBs have a liquidity ratio mean value of 62% this further revealed that the selected DMBs liquidity regulations are adequate and show the ability of the banks to meet their financial needs as at when fall due without the occurrence of unforeseen losses.

Similarly, Table 1 shows that CAR have a mean value of 0.31 during the study period which implies that on the average of period 12 years the CAR stood at 31%. The result for the CAR revealed that the selected DMBs are strong and stable since the mean CAR (31%) is above the CBN prudential Guideline requirement of 10% to 15%. However, DMB's capital is enough and acts as a buffer to absorb potential losses and be able to meet depositors' demands for their money. The CRR is observed to have a mean of 1.80% with the maximum and minimum values of 2.18% and 0.05% respectively. This result indicates that on average, for the period of twelve (12) years the CRR stood at 1.80%. This result indicates that the selected DMBs has a good credit rating of A+ status. This further revealed that the credit risk in the selected DMBs is very low and adverse consequences of undesirable risk are hereby reduced.

Confirming the normality of the data set, both skewness and kurtosis values are above the tolerable range of +1 to -1, establishing the fact that the data were normally distributed in each construct. According to Park (2008), a normal distribution should have a skewness of zero or very close to zero. However, the skewness for all the variables ROE, ROA, CAR and CRR were all close to +1 or -1 with values of -0.06, 2.40, 1.64 and 2.66respectively. However, the dataset for ROE, ROA, CAR and CRR are normally distributed therefore signifying the absence of outliers in the data set. Confirming this result is the Kurtosis values for ROE, ROA, CAR and CRR were all below the threshold of 10 with values of 3.54, 7.10, 5.54 and 9.6 respectively. Similarly, the skewness and Kurtosis values for LDR are 9 and 86.8 respectively. However, this signifies the presence of outliers in the data set.

Therefore, to reach the normal distribution, the high values of skewness and kurtosis for LDR which signify the presence of outliers in the data set were resolved through data transformation using the reciprocal of the variable (1/LDR). The transformation of data was necessary to take care of outliers in the data that could produce spurious regression results.

4.1.2 Residuals Diagnostics Test
The accuracy of the regression model and by implication the regression result is a function of the results of the diagnostic tests. This section examines whether the primary findings hold in the case of the violation of the OLS assumptions, and confirm the reliability of the t-test results from the panel data regression. Residuals from a regression should never contain any systematic information since this is a sign that this information is not included in the regression model. The tests in this section include the Serial Correlation LM test, heteroscedasticity, multicollinearity checks (VIF test and correlation matrix) of the different regression estimators.

4.1.3 Serial Correlation LM Test

The presence of serial correlation is examined by Breusch-Godfrey Serial Correlation LM Test. Residuals for OLS output is tested for serial correlation, using the following hypothesis:

H_0: There is no serial correlation

H_a: There is a serial correlation

Table 2: Breusch-God+frey Serial Correlation LM Test:

F-statistic	1.185619	Prob. F(2,111)	0.3094
Obs*R-squared	2.447136	Prob. Chi-Square(2)	0.2942

Source: Eviews 10 Output, 2023

Table 2 presents the summary of the serial correlation LM test from E-views output. The p-value from the serial correlation is 0.3 which is greater than the critical value of 0.05, therefore, the test accepts the hypothesis of no serial correlation. The LM test both indicate that the residuals are not serially correlated.

4.1.4 Heteroskedasticity Test

This test was conducted using the Breusch-Pagan-Godfrey test of heteroskedasticity to check if the variability of error terms is constant. The presence of heteroskedasticity indicates that the variation of the residuals or error terms may not be constant and could affect inferences made from beta coefficients, coefficient of determination (R^2) and F-statistics of the study model. However, this test is important to confirm the robustness of the OLS output since we cannot rely on them in the presence of heteroscedasticity.

The hypotheses are:

H_0: Homoskedasticity

H_a: Heteroskedasticity

Table 3: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.356830	Prob. F(3,76)	0.7843
Obs*R-squared	1.111181	Prob. Chi-Square(3)	0.7744
Scaled explained SS	8.304051	Prob. Chi-Square(3)	0.0401

Source: Eviews 10 Output, 2023

Table 3 summarizes the Eviews output from the Heteroskedasticity test. The p-value for the Heteroskedasticity test revealed a value of 0.78 (78%) which is greater than the critical value of

5% (0.05). However, we, therefore, accept the null hypothesis of the presence of homoscedasticity and thus OLS t-test results can be trusted.

4.1.5 Multi-collinearity Test

Table 4 below brings out in clearer terms the extent to which the standard error of regression coefficients may be inflated due to the relationship between the predictor variables. In other words, the Variance Inflation Factors (VIF) were conducted to measure the degree of correlation between one independent variable and another. As a rule of thumb (Kennedy 1992; Hair, Anderson, Tatham & Black, 1995; & Rogerson, 2001), a VIF in excess of 10 suggests a strong presence of multi-collinearity and vice versa.

Table 4: Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	7.902865	10.75559	NA
LDR	2.268900	6.747436	1.113444
CAR	5.149135	4.263447	1.018564
CRR	1.464064	1.830650	1.123994

Source: Eviews 10 Output, 2023

The result from Table 4 revealed the absence of multi-collinearity among the variables (LDR, CAR, CRR) as all the VIF values are less than 10 with values 1.11, 1.02 and 1.12 respectively. Based on this, the model is fit and robust for the study since there is no evidence of multi-collinearity. Hence, there is no tendency that the standard errors of the regression coefficients would have been erroneously inflated.

Table 5: Correlation Matrix of Dependent and Independent Variables

Correlation	ROA	ROE	LDR	CAR	CRR
ROA	1.000000				
ROE	0.533198	1.000000			
LDR	-0.166188	-0.014030	1.000000		
CAR	-0.090890	0.458173	0.082943	1.000000	
CRR	-0.058047	-0.192841	-0.316281	-0.127282	1.000000

Source: E-views 10 output, 2023

Table 5 presents correlation values between dependent and independent variables and the correlation among the independent variables themselves. This test was carried out to check if there is a strong correlation among the independent variables that may produce misleading results. From Table 5, it is observed that the independent variables of the study correlate perfectly well (between -0.32 and 0.53). There is no relationship among the independent variables that is large enough (greater than 0.7) to pose the problem of the singularity of data (Hassan, 2011). The result revealed a low magnitude of correlations among the independent variables, with all the correlation coefficients far below the threshold of 0.8 indicating an absence of multicollinearity in the sampled dataset.

4.2 Panel Regression Analysis

Panel data regression method was used to analyse the regression result of this study. For the purpose of analysis, the Hausman test was conducted to make a choice between Fixed and Random Effects Model estimates. The study has two regression models, the ROA model and the ROE model and will be presented in the two-fold analysis.

4.2.1 Regression Model

4.2.1.1 ROA Regression Model

Results of the Hausman test for the ROA model is given in Table 6 below.

Table 6: Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.072922	3	0.5574

Source: E-views 10 Output, 2023

Hausman specification test was then conducted to choose the preferred model between the fixed effect and random effect regression models. The test basically checks if the error terms are correlated with the regressors. The result from Table 6 shows that the error terms are correlated with the regressors as the chi-square probability is insignificant at 5% (0.5574). The result suggests that the random effect regression model is most appropriate for the sampled data. Consequently, the regression result presented in Table 7 and analysed in this study is based on the Random Effect Model.

Table 7: ROA Regression Analysis (Random Effect Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.045049	0.009767	4.612188	0.0000
LDR	-0.012151	0.004954	-2.452783	0.0157
CAR	-0.000523	0.000778	-0.671800	0.5031
CRR	-0.002028	0.001182	-1.716566	0.0888
R-squared	0.261212	Mean dependent var		0.014084
Adjusted R-squared	0.236288	S.D. dependent var		0.027223
S.E. of regression	0.026711	Sum squared resid		0.080620
F-statistic	2.855982	Durbin-Watson stat		1.940199
Prob(F-statistic)	0.046702			

Source: E-views 10 Output, 2023

Table 7 reveals an R2value of 0.26. The R2, which represents the coefficient of multiple determination implies that 26% of the total variation in the dependent variable (ROA) of listed DMBs in Nigeria is jointly explained by the explanatory variables (LDR, CAR, CRR). Though the R2of 0.26 may appear low, it does not constitute a problem to the study because the F- statistics value of 2.86 Prob.>F = 0.047) indicates that the model is fit to explain the relationship expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used. This suggests that apart from prudential guidelines indicators, other factors that mitigate the financial performance (ROA) of the sampled DMBs in Nigeria constituted 74% (i.e., 100-26) not considered in this model. The adjusted R-square compensates for the model complexity to provide a fairer comparison of model performance. The result is supported by the value of the adjusted R2 which is to the tune of 23% showing that if the entire population was used, the result will deviate by 3% (26% -23%). The Durbin-Watson statistics of 1.940 (Close to 2) implies the absence of an auto-correlation problem in the residuals of regression analysis.

The regression constant is 0.05, giving a predictive value of the dependent variable when all other variable is zero. The regression result revealed that LDR, CAR and CRR have a negative effect on the ROA of the DMBs in Nigeria. This implies that a percentage increase in LDR, CAR and CRR will decrease ROA of the selected DMBs by 1.2%, 0% and 0% respectively.

4.2.2 ROE Regression Model

Results of the Hausman test for the ROE model is given in Table 8 below.

Table 8 Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.665678	3	0.8812

Source: E-views 10 Output, 2023

Hausman specification test was then conducted to choose the preferred model between the fixed effect and random effect regression models. The test basically checks if the error terms are correlated with the regressors. The result from Table 8 shows that the error terms are correlated with the regressors as the chi-square probability is insignificant at 5% (0.8812). The result suggests that the random effect regression model is most appropriate for the sampled data. Consequently, the regression result presented in Table 9 and analysed in this study is based on the random effect model.

Table 9: ROE Regression Analysis (Random Effect Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.087505	0.035665	2.453501	0.0157
LDR	-0.019922	0.016713	-1.191966	0.2358
CAR	0.014299	0.002681	5.332596	0.0000
CRR	-0.008769	0.003890	-2.254249	0.0261
R-squared	0.240634	Mean dependent var		0.060193
Adjusted R-squared	0.220473	S.D. dependent var		0.098286
S.E. of regression	0.086628	Sum squared resid		0.847989
F-statistic	11.93609	Durbin-Watson stat		1.465040
Prob(F-statistic)	0.000001			

Source: E-views 10 Output, 2023

Table 9 reveals an R2value of 0.24. The R2, which represents the coefficient of multiple determination implies that 24% of the total variation in the dependent variable (ROE) of selected listed DMBs in Nigeria is jointly explained by the explanatory variables (LDR, CAR, CRR).

Though the R2of 0.24 may appear low, it does not constitute a problem to the study because the F- statistics value of 11.9 Prob.>F = 0.000) indicates that the model is fit to explain the relationship expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used. This suggests that apart from prudential guidelines indicators, other factors that mitigate the financial performance (ROE) of the sampled DMBs in Nigeria constituted 76% (i.e., 100-24) not considered in this model. The adjusted R-square compensates for the model complexity to provide a fairer comparison of model performance. The result is supported by the value of the adjusted R2 which is to the tune of 22% showing that if the entire population was used, the result will deviate by 2% (24% -22%). The Durbin-Watson statistics of 1.465 (Close to 2) implies an absence of auto-correlation problem in the residuals of regression analysis.

The regression constant is 0.09, giving a predictive value of the dependent variable when all other variable is zero. The regression result revealed that LDR and CRR have a negative effect on the return on equity of the DMBs in Nigeria. This implies that a percentage increase in LDR and CRR will decrease the ROE of the selected DMBs by 2% and 1% respectively. However, the CAR has a positive effect on the return on equity of the DMBs in Nigeria. This implies that a percentage increase in CAR will decrease the ROE of the selected DMBs by 1.4%.

4.3 Test of Hypotheses

The three (3) hypotheses formulated in this study were tested using the p-value. The decision rule is that the researcher will accept the null hypothesis if the p-value is greater than 0.05 level of significance. Rather, if the p-value is < 0.05, then we have adequate statistical evidence to reject the null hypothesis

4.3.1 Hypotheses One

Ho_i: Capital adequacy regulation has no significant impact on the financial performance of DMBs in Nigeria

4.3.1.1 Decision Rule: To test this hypothesis, Tables 6 and 8 are used. The strength of the relationship between CAR and financial performance (ROA, ROE) of selected DMBs in Nigeria is measured by the calculated p-value of 0.50 and 0.00 for ROA and ROE models respectively and a significance level (α) of 0.05. However, since the computed p-values of 0.50 for the ROA model is greater than the significance level (α) of 0.05, thus, the null hypothesis is accepted. However, the computed p-values of 0.00 for ROE is less than the significance level (α) of 0.05, thus, the null hypothesis is rejected for the ROE model Therefore, specifically capital adequacy regulation has no significant effect on ROA but significantly affect the ROE of DMBs in Nigeria.

The negative relationship between CAR and the ROA is consistent with the findings of Morshedur, Ali and Mouri (2018), Barno and Odonkor (2012), Goddard et al (2004). This implies that as more capital is set aside as a buffer for banks' safety, it affects bank performance, implying that the negative relationship between CAR and ROA emphasizes that various efforts by regulators to review the capital base of the banking sector are not always motivated by a desire to improve bank profitability. However, the positive and significant relationship between CAR and the ROE is consistent with the documentation of Agbeja, Adelakun and Olufemi, (2015), and Ndifon and Ubana (2014).

This further implies that banks with more equity capital are perceived to have more safety and such advantage can be translated into higher ROE. The higher the capital ratio, the more profitable a bank will be.

4.3.2 Hypotheses Two

Ho$_{ii}$:   Liquidity regulation has no significant impact on the financial performance of DMBs in Nigeria

4.3.2.1 Decision Rule: To test this hypothesis, Tables 6 and 8 are used. The strength of the relationship between LDR and financial performance (ROA, ROE) of selected DMBs in Nigeria is measured by the calculated p-value of 0.02 and 0.24 for ROA and ROE models respectively and a significance level (α) of 0.05. However, since the computed p-values of 0.02 for the ROA model is less than the significance level (α) of 0.05, thus, the null hypothesis is rejected. However, the computed p-values of 0.24 for ROE is greater than the significance level (α) of 0.05, thus, the null hypothesis is accepted for the ROE model Therefore, specifically liquidity regulation has a significant effect on ROA but insignificantly affect the ROE of DMBs in Nigeria.

The result of the study is consistent with the findings of Calistus et al (2018), Ahmad (2016), Okaro and Nwakoby (2016), Lartey et al (2013) that the LR has a negative impact on profitability. This means that LR decreases profitability, which may be explained by the fact that banks with a higher financing gap ratio lack steady and cheap funding and must consequently rely on costly external sources to satisfy their funding needs. As a result, the banks' profitability suffers. (Arif & Nauman Anees, 2012; Chen et al., 2018).

4.3.3 Hypotheses Three

Ho_iii: Credit risk regulation has no significant impact on the financial performance of DMBs in Nigeria.

4.3.3.1 Decision Rule: To test this hypothesis, Tables 6 and 8 are used. The strength of the relationship between CRR and financial performance (ROA, ROE) of selected DMBs in Nigeria is measured by the calculated p-value of 0.09 and 0.03 for ROA and ROE models respectively and a significance level (α) of 0.05. However, since the computed p-values of 0.09 for the ROA model is greater than the significance level (α) of 0.05, thus, the null hypothesis is accepted. However, the computed p-values of 0.03 for the ROE model is less than the significance level (α) of 0.05, thus, the null hypothesis is rejected for the ROE model Therefore, specifically, CRR has no significant effect on ROA but significantly affect the ROE of DMBs in Nigeria.

The study findings are supported by the documentation of Wakarindi (2018), Oduro, Asiedu and Gadzo (2019), Ndubuisi and Amedu (2018), Kayode, Obamuyi, Owoputi and Adeyefa (2015), Dietrich and Wanzenried (2011), Ongore and Kusa (2013), and Islam and Nishiyama (2016) that credit risk has a negative effect on bank financial performance. This might imply that when the quality of lending is not good in a given market, high loan loss provisions could occur, which could lead to higher NPL, eventually leading towards lower bank profitability.

CONCLUSION AND RECOMMENDATIONS

This study investigated the effect of prudential guidelines on the financial performance of Listed DMBs in Nigeria. The conclusions for this study were drawn based on the results of the study. In consonance with the foregoing, the study concludes that CAR has a negative but insignificant effect on ROA, but has a positive and significant effect on DMBs' ROE in Nigeria. This means that as more capital is placed aside as a buffer for banks' safety, it has a negative impact on their ROA, implying that regulators' attempts to examine the capital basis of banks are oftentimes ineffective towards maximizing DMBs ROA. This research further concludes that banks with more equity capital are perceived to have more safety and such advantage can be translated into higher ROE. The higher the capital ratio, the more profitable DMBs will be.

The study also concludes that LR is negatively correlated with DMBs financial performance in Nigeria. This demonstrates that LR reduces profitability, which may be explained by the fact that banks with a higher financing gap ratio lack consistent and inexpensive funding, forcing them to rely on costly external sources to satisfy their funding needs. As a result, negatively affect their financial performance. Furthermore, the study concludes that CRR has a detrimental negative effect on DMBs' financial performance in Nigeria. This might imply that when lending quality is

poor in a market, substantial loan loss provisions may be incurred, resulting in a rise in non-performing loans and, ultimately, decrease bank profitability.

In line with the findings of the study, the following recommendations should be taken into considerations:

i. The minimum capital requirement of DMBs in Nigeria should be reviewed on a regular basis to ensure that it remains at an optimal level, and Nigerian banks should be capitalized to enable them to access cheaper sources of funds, resulting in increased profit margins. This would go a great way toward restoring public trust in banks, as the latter would be better equipped to provide consumers' credit demands while also safeguarding depositors' funds.

ii. This study also suggests that banks adjust their credit policies in order to reduce credit risk and ensure that they are protected against it. Good credit policies, on the other hand, lead to lower poor credit in banks and hence greater profitability.

iii. Furthermore, the CBN should maintain the minimum liquidity requirement for DMBs at 30%, since this has an insignificant negative effect on DMBs' profitability and, as a result, the long and short-term stability of the whole system is crucial. DMBs' survival is dependent on liquidity management and profitability, thus focus on implementing steps to assure successful liquidity management. The actions will help to reduce or eliminate the negative consequences of excess and insufficient cash.

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EFFECT OF AUDITOR'S INDEPENDENCE ON AUDIT QUALITY: EVIDENCE FROM DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT:

The study determined the effect of auditor's independence on audit quality of deposit money banks in Nigeria. Specifically, the study sought to ascertain the effect of audit committee independence, audit fees and audit tenure on audit quality of deposit money banks in Nigeria. The study adopted Ex-Post Facto research design. All the quoted deposit money banks were used as sample for the study. Data were extracted from annual reports and accounts of the sampled banks. Simple regression analysis was used to test the formulated hypotheses with aid of E-view version 9.0. Based on analysis, the study found that audit committee independence has a positive insignificant effect on audit quality of quoted Nigerian deposit money banks. Also that audit fees have a positive effect on audit quality of quoted Nigerian deposit money banks, but not statistically significant. The researcher therefore recommended among others that the auditor should be remunerated on the basis of work experience, qualification, duration of the audit assignment, and background profile..
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1. INTRODUCTION

Audit independence refers to the ability of the external auditor to act with integrity and impartiality during his/her auditing functions (Akpom & Dimkpah, 2013). Auditors report could be likened to internal control system by which an organization's resources are directed, monitored, and measured (Akintayo & Akosile, 2022). It plays an important role in detecting and preventing fraud and protecting the organization's resources, both physical (e.g. machinery and property) and intangible (e.g., reputation or intellectual property such as trademarks). Audit quality depends on auditor's independence as proposed by Aren, Randal, and Beasley (2014) that the value of auditing depends heavily on the public's perception of the independence of auditors. The same view was

also expressed by Enofe, Nbgame and Ediae (2013) based on the results of research that as auditor's independence increases, the quality of the audit also increases.

Auditor independence which is the fulcrum of audit quality in recent times seems compromised as most corporations whose financial statements were audited and issued unqualified reports collapsed shortly after audit with the news that the financial statements are grossly misstated (Dunkhir, 2021). Auditor independence which determines audit quality was one of the fundamental causes of corporate failures that led to the collapse of hitherto strong firms whose fallout caused the global economic meltdown of the middle 2000. This led to user's apathy and confusion about the role auditors ought to play to safeguard not only their profession but also build and restore investors' confidence with a view to reducing the audit expectancy gap that existed after the collapse of these firms. Investigations into their collapse revealed that their failures were not unconnected with auditors' inability to exhibit their professional competence and independence.

Over the years, several studies have attempted to examine the relationship between certain explanatory variables and audit quality but the results have been inconclusive (Singh & Singh, 2019; Harber & Marx, 2020; Martani, Rahmah, Fitriany & Anggriata, 2021). In addition, the previous studies on audit independent and audit quality mainly used corporate firm other than banking sector except those who studied audit quality and financial performance; (Egbunike and Abiahu, 2017; Amahalu and Ezechukwu, 2017). However, there is a limited study on audit independence and audit quality of (financial institution) deposit money banks in Nigeria. Besides, the issue of uncertainty on the prior studies reports and limited studies as regards the deposit money banks in Nigeria, between the years 2005- 2012, The Central Bank of Nigeria (CBN) investigated banks on possible reasons for the collapse of some banks in the country. It was discovered that the failed deposit money banks has not adhered strictly to corporate governance which led to the removal of Chief Executive Officers of some of these banks. Since then, the failure of some deposit money banks in Nigeria has been resolved either by merger or acquisition of some of these banks. It is against this backdrop that this study deems it plausible to determine the effect auditor independence has on audit quality of deposit money banks in Nigeria

1.1 Objectives of the Study

The main objective of the study is to determine the effect of audit independence on audit quality of deposit money banks in Nigeria. Specifically, the study sought to achieve the followings;

1. to ascertain the extent to which audit committee independence affect audit firm reputation of quoted deposit money banks in Nigeria.
2. to evaluate the degree of effect audit fees has on audit firm reputation of quoted deposit money banks in Nigeria.
3. to determine the extent to which audit tenure affect audit firm reputation of quoted deposit money banks in Nigeria.

1.2 Research Hypotheses

The following hypotheses were stated in null forms;

Ho_1: Audit committee independence does not significantly affect audit firm reputation of quoted deposit money banks in Nigeria.

Ho_2: Audit fees do not significantly affect audit firm reputation of quoted deposit money banks in Nigeria.

Ho_3: Audit tenure does not significantly affect audit firm reputation of quoted deposit money banks in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Audit independence

Auditors' independence refers to the auditors' ability to maintain an objective and impartial mental attitude throughout the audit (Yuniarti, 2019). To maintain the highest ethical standard for the auditing profession, independence should be tailored towards the quality of being free from influence, persuasion or bias (Maria, 2016). In the absence of independence, the value of audit services will be greatly impaired. Auditor's independence is recognized as the cornerstone of the public accounting profession and that it is privileged to govern itself.

Auditor's independence can be seen as an auditor's unprejudiced mental frame of mind in making decisions as regards to the processes that lead to the preparation of financial statement and the audit (Tobi, Osasrere & Emmanuel, 2016). Susanti and Leny (2018) described auditor's independence as the ability to surmount unfairness and the desire to express and disclose all audit findings in the audit report. Singh and Singh (2019) opined that for an auditor to be independent, the auditor must not be under any form of control or coercion that will substantially weaken the quality of the audit report. Elliott and Jacobson (2018) took a different view, they assert that

auditor's independence involves the ability of the auditor to ensure that the financial statement is free from material statement which makes it more reliable.

2.1.2 Audit Quality

Different concepts on audit quality have been in existence over decades, there is no generally accepted postulation on audit quality. Saputra (2015) infers that audit quality involves the ability of an auditor to identify and report material misstatement from the financial statement prepared by the management; this is done in line with the generally accepted auditing standards. Simply put, it involves the ability of the auditor to disclose related errors/fault or fraud, disclosure of going concern symptoms and breach on internal control (Okechukwu & Ene, 2023).

2.1.3 Audit committee Independence

The members of the audit committee must be independent of management or controlling shareholders for them to perform its role as an effective supervisory body,. The audit committee should be composed of independent outside directors as a system to secure the reliability and management transparency of accounting information by supervising the management from an independent standpoint (An, 2023). When the audit committee includes accounting or finance experts, earnings management is reduced or the quality of accruals is improved (Ali & Aulia, 2019).

2.1.4 Audit Firm Size (Audit Reputation)

The audit firm size is another factor that impacts auditor independence. There are many differences between the two firms which include the amount of responsibility, the number and reputation of the clients and the caliber of employees. Larger audit firms are more likely to provide a better-quality audit due to better research facilities, technology, financial resources, and skilled labor because they can conduct audits from bigger firms. Pressures from management will affect smaller firms while larger firms are able to resist since they have different variations for client exposure. Since larger firms receive more publicity from the media, smaller firms are less noticeable by shareholders, "implying less information and weaker monitoring" (Farouk & Hassan, 2020). In addition, there was a difference in the way large and small firms chose to document their disclosures in financial statements. For instance, national firms would leave comments for any adjustments that were made on the disclosure while local firms preferred a footnote.

2.1.5 Audit Tenure

Auditor tenure has been categorized into two aspects: the first has to do with the period spent by an individual on an audit engagement, most especially a partner involved in an audit, and the other category has to do with the audit firms' tenure. Both positions concerning the relationship between audit tenure and financial reporting quality have empirical support (Oladejo, 2022). With findings stating that audit reporting quality both decreases and increases as tenure of audit firm increases. Good auditor-client relationship enhances audit engagement planning and saves audit costs (Achyarsyah & Molina, 2014). However, prolonged relationship could be detrimental to the client (Sawan & Alsaqqa, 2013).

An audit firm's tenure can be defined as the length of time an auditor performs services for a client. Risk associated with the loss of independence is increased once client relationships are maintained for a long period of time. On the other hand, other individuals believe having a lasting and faithful relationship will augment independence. For example, "long tenure is beneficial as auditors gain expertise in the field that they audit and may reduce the auditor's ability to detect irregularities or material misstatements". A recommendation to rotate auditors was advised by the Metclaf subcommittee to avoid this issue. Academic research has proven that there are more unsuccessful audits in the beginning of auditor-client relationships in addition to lower earnings with audits that have shorter time frames.

2.1.6 Size of Audit Fee and Non-Audit Services

Many concerns are centered on auditors providing Non-Audit Services (NAS) because they are likely to risk their independence in return for more NAS earnings. Examples of non-auditing services include appraisal services, actuarial services, bookkeeping, internal audit services, and various modes of management consulting, financial information design services, taxation services and legal advice (Austin & Herath, 2014).

Audit Fee can be defined as the amount charged to a client to conduct specific services by the accountant. The fee may vary by size or based on the type of service provided but there have been many questions from researchers whether it affects audit quality. "The amount of audit fee can vary depending on the assignment risk, the service complexity, the level of expertise required, the cost structure of Public Accountant Firm and other professional considerations" (Rahmina & Agoes, 2014). Studies have shown that larger firms tend to charge higher fees because of the idea that they may provide better quality for audits. Audit quality is challenging to measure and explain due to the lack of concept detail. According to Rahmina and Agoes (2014), there are nine elements firms should implement to meet quality control expectations. They include: independence,

assignment of personnel, consultation, supervision, employment, professional development, promotion, acceptance and sustainable clients and inspection.

3. MATERIAL AND METHOD

Ex-post facto research design was adopted for the study. The population consists of the 13 deposit money banks quoted on the Nigerian Exchange Group of which all were used as sample. These banks include Access bank plc, FCMB plc, First bank plc, GTB plc, Zenith bank plc, Sterling bank plc, UBA plc (M), Fidelity bank plc, Unity bank plc, Wema bank plc, Eco bank plc, Union bank plc and Stanbic IBTC. The study covered eight years annual reports and accounts of these banks from 2013 to 2022. The data were sourced from publications of Nigerian Exchange Group Factbook and the annual reports and accounts of the sampled banks. The data extracted include; audit committee independence, audit fees, audit tenure and audit reputation. This study employed simple regression analysis and correlation coefficient matrix to test the formulated hypotheses with aid of E-View version 9.

3.1 Model Specification

This study adapted the econometric model of Abdulsalam and Moshud (2022), hence the model considered some of the variables used for the present study.

$FP = \beta_0 + \beta_1(AUFTYit) + \beta_2(AUDTENit) + \beta_3(FIRMSIZEit) + \text{\euro}it$

Where:

FP = Financial Performance (Dependent Variable)

AUFTY = Audit Firm Type (Independent Variable)

AUDTEN = Auditor's Tenure (Independent Variable)

FIRMSIZE = Firm Size (Controlled variable)

$\text{\euro}$ = Error Term

The logistic regression for this study takes the form:

$ADR = \beta_0 + \beta_1 ACI + \beta_2 ADF + \beta_3 ADT + \varepsilon$ ….....………….………Eqn i

$ADR = \beta_0 + \beta_1 ACI\ \varepsilon$…………………………………..............….. Eqn ii

$ADR = \beta_0 + \beta_2 ADF\ \varepsilon$………………………………….…… Eqn iii

$ADR = \beta_0 + \beta_3\ ADT\ \varepsilon$………………………….............…... Eqn iv

Where:

ADR= Audit firm reputation represents audit quality

ACI= Audit committee independence

ADF= Audit fees

ADT= Audit tenure

Table 1: Operationalization of the variables

Variables	Proxies	Measures	Sources
Dependent Variable			
Audit Firm Reputation	ADR	If the banks audited reports show that it is audited by one of the "big 4" audit firms (Price-water house coopers; Akintola Williams Deloitte; KPMG Professional service and Ernst and Young, otherwise zero (1), otherwise (0) Kane and Velury (2011)	Ali and Aulia (2015) Hong and My (2017)
Independent Variables			
Audit Committee Independence	ACI	Proxy using the proportion of non-directors on the board.	Sultana, Sultana, Singh & Rahman, (2019); An, 2023).
Audit fees	ADF	Comprise the natural log of the Audit fees paid by the company.	Austin & Herath, 2014); Austin & Herath, 2014).
Audit tenure	ADT	This involved the length of auditor-client relationship, '1' if 3 years + and '0' if otherwise.	Oladejo, (2022); Achyarsyah & Molina, (2014).
Control variable			
Bank size	BSZ	This comprised the total assets of the firm	Abdulsalam and Moshud (2022); Amahalu, Okeke, and Obi (2017)

Source: Author's concept (2023)

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistics

Table 2: Mean, maximum/minimum values, standard deviation and Jarque-Bera (JB) Statistics for each of the variables

Table	ADR	ACI	ADF	ADT	BSZ
Mean	0.592308	5.269231	838302.0	0.776923	3.22E+09
Median	1.000000	5.000000	180000.0	1.000000	2.07E+09
Maximum	1.000000	11.00000	25000000	1.000000	2.76E+10
Minimum	0.000000	0.000000	13000.00	0.000000	1.35E+08
Std. Dev.	0.493306	2.071544	3242390.	0.417920	3.85E+09
Skewness	-0.375689	0.797786	6.597602	-1.330371	3.763055
Kurtosis	1.141142	3.614371	48.45643	2.769887	22.45488
Jarque-Bera	21.77457	15.83457	12135.50	38.63438	2356.980
Probability	0.000019	0.000364	0.000000	0.000000	0.000000
Sum	77.00000	685.0000	1.09E+08	101.0000	4.18E+11
Sum Sq. Dev.	31.39231	553.5769	1.36E+15	22.53077	1.91E+21
Observations	130	130	130	130	130

Source: E-view output, 2023

Table 2 shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and Jarque-Bera (JB) Statistics (normality test). The results in table 2 provided some insight into the nature of the Nigerian banks that were used in this study.

It was observed that on the average over the ten (10) years periods (2013-2022), the sampled banks in Nigeria were characterized by positive audit reputation (ADR) (0.592). Also, the large difference between the maximum and minimum value of the audit committee independence (ACI),audit fees (ADF), audit tenure (ADT), and bank size (BSZ) show that the sampled banks in this study are not dominated by banks with more audit reputation (ADR).

In this table, the Jarque-Bera (JB) which test for normality or the existence of outliers or extreme values among the variables shows that most of the variables are normally distributed at 5% level of significance. This means that any variable with outlier are not likely to distort our conclusion and are therefore reliable for drawing generalization. This also implies that the least square estimate can be used to estimate the pooled regression model.

4.1.2 Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in table 3

Table 3: Correlation Matrix

	ADR	ACI	ADF	ADT	BSZ
ADR	1				
ACI	-0.104158	1			
ADF	0.177540	-0.007418	1		
ADT	0.081855	0.060957	0.038214	1	
BSZ	0.146475	-0.180450	0.273373	0.069326	1

Source: researcher's computation (2023)

The use of correlation matrix in most regression analysis is to check for multi-colinearity and to explore the association between each explanatory variable (ACI, ADF, ADT and BSZ) and the dependent variable (ADR). Table 3 focused on the correlation between ADR and the independent variables ACI, ADF, ADT and BSZ. Finding from the correlation matrix table shows that all our independent variables, (ACI=-0.104, ADF=0.178, ADT=0.082 and BSZ =0.146) were observed to be positively associated with audit reputation (ADR) except audit committee independence (ACI) -0.104 which is negatively associated with dependent variable. In checking for multi-colinearity, we notice that no two explanatory variables were perfectly correlated. This means that there is no problem of multi-colinearity between the explanatory variables. Multi-colinearity may result to wrong signs or implausible magnitudes in the estimated model coefficients, and the bias of the standard errors of the coefficients.

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho_1:   Audit committee independence does not affect audit quality of quoted deposit money banks in Nigeria.

Below in Table 4 is the output of the analysis conducted:

Table 4: Pooled Regression Results between ADR, ACI and BSZ

Dependent Variable: ADR

Method: Least Squares

Date: 05/22/23   Time: 12:07

Sample (adjusted): 1 130

Included observations: 130 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.638723	0.130882	4.880138	0.0000
ACI	-0.019133	0.021184	-0.903155	0.3682
BSZ	1.69E-11	1.14E-11	1.483580	0.1404
R-squared	0.027700	Mean dependent var		0.592308
Adjusted R-squared	0.012388	S.D. dependent var		0.493306
S.E. of regression	0.490241	Akaike info criterion		1.434969
Sum squared resid	30.52275	Schwarz criterion		1.501143
Log likelihood	-90.27297	Hannan-Quinn criter.		1.461857
F-statistic	1.809041	Durbin-Watson stat		0.426655
Prob(F-statistic)	0.168007			

Source: Researcher's computation through E-view 9.0 statistical package

4.2.1.1 Interpretation of Regression Result

In Table 4, R-squared and adjusted Squared values were (0.027) and (0.012) respectively. This indicates that all the independent variables jointly explain about 27% of the systematic variations in audit reputation (ADR) of our samples banks over the ten years periods (2013-2022). Table 4 reveals an R-squared value of 0.027,which represents the coefficient of multiple determinations imply that 27% of the total variation in the dependent variable (ADR) of quoted deposit money banks in Nigeria is jointly explained by the explanatory variables (ACI and BSZ). The R-squared of 27% did not constitute a problem to the study because the F- statistics value of 1.809041 with an associated Prob.>F = 0.168007 indicates that the model is fit to explain the relationship

expressed in the study model. The value of adjusted 27% also shows that 73% of the variation in the dependent variable is explained by other factors not captured in the study model. This suggests that apart from ACI and BSZ, there are other factors that mitigate ADR of quoted deposit money banks in Nigeria.

4.2.1.2 Test of Autocorrelation: using Durbin-Waston (DW) statistics which we obtained from our regression result in table 4, it is observed that DW statistics is 0.426655 and an Akika Info Criterion and Schwarz Criterion which are 1.434969 and 1.501143 respectively also further confirms that our model is well specified. In addition to the above, the specific findings from each explanatory variable are provided as follows: The results in table 4 illustrated that audit committee independence (ACI) has a negative but significant relationship with audit reputation measured with a beta coefficient (β_1) and t- value of -0.019133 and -0.903155 respectively and p- value of 0.368 which is not statistically significant at 5%.

Based on the empirical evidence that suggests that audit committee independence has a negative insignificant effect on audit quality of quoted deposit money banks in Nigeria at 5% level of significance, thus, the null hypothesis of the study is accepted. This is in line with the study carried out by Ilaboya and Ohiokha (2014) which revealed there is a positive relationship between firm size, board independence and audit quality whereas there is a negative relationship between auditor's independence, audit firm size, audit tenure and audit quality. Also, Abdul, Sutrisno, Rosidi and Achsin (2014) found that auditor's independence has a positive effect on audit quality. It means that the higher the auditor independence, the higher the audit quality. ICAS (2014) auditor independence, audit tenure and audit fee have a positive influence on audit quality.

4.2.2 Hypothesis Two

Ho$_2$: Audit fees do not affect audit quality of quoted deposit money banks in Nigeria.

Below in Table 5 is the output of the analysis conducted:

Table 5: Pooled Regression Results between ADR, ADF and BSZ

Dependent Variable: ADR

Method: Least Squares

Date: 05/22/23   Time: 12:08

Sample (adjusted): 1 130

Included observations: 130 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.529725	0.055725	9.506097	0.0000
ADF	2.26E-08	1.37E-08	1.645715	0.1023
BSZ	1.36E-11	1.16E-11	1.172253	0.2433
R-squared	0.410887	Mean dependent var		0.592308
Adjusted R-squared	0.260799	S.D. dependent var		0.493306
S.E. of regression	0.486651	Akaike info criterion		1.420269
Sum squared resid	30.07737	Schwarz criterion		1.486443
Log likelihood	-89.31751	Hannan-Quinn criter.		1.447158
F-statistic	2.776134	Durbin-Watson stat		0.409970
Prob(F-statistic)	0.066062			

Source: Researcher's computation through E-view 9.0 statistical package

4.2.2.1 Interpretation of Regression Result

In Table 5, R-squared and adjusted Squared values were (0.410) and (0.261) respectively. This indicates that all the independent variables jointly explain about 41% of the systematic variations in audit reputation (ADR) of our samples banks over the ten years periods (2013-2022). Table 5 reveals an R-squared value of 0.410,which represents the coefficient of multiple determinations imply that 41% of the total variation in the dependent variable (ADR) of quoted deposit money banks in Nigeria is jointly explained by the explanatory variables (ADF and BSZ). The R-squared of 41% did not constitute a problem to the study because the F- statistics value of 2.776134 with an associated Prob.>F = 0.066062 indicates that the model is fit to explain the relationship expressed in the study model. The value of adjusted of 41% also shows that 59% of the variation in the dependent variable is explained by other factors not captured in the study model. This

suggests that apart from ADF and BSZ, there are other factors that mitigate ADR of quoted deposit money banks in Nigeria.

4.2.2.2 Test of Autocorrelation: using Durbin-Waston (DW) statistics which we obtained from our regression result in table 5, it is observed that DW statistics is 0.409970 and an Akika Info Criterion and Schwarz Criterion which are 1.420269 and 1.486443 respectively also further confirms that our model is well specified.

The results in table 5 illustrated that audit fee (ADF) has a negative but significant relationship with audit reputation measured with a beta coefficient (β_1) and t- value of 2.26E-08 and 1.645715 respectively and p- value of 0.066 which is not statistically significant at 5%. Based on the empirical evidence that suggests that audit fee has a positive insignificant effect on audit quality of quoted deposit money banks in Nigeria at 5% level of significance, thus, the null hypothesis of the study is accepted. This result was in line with that of Yuniarti (2019) which shows that there is a significant positive relationship between audit fees and audit quality.

4.2.3 Hypothesis Three

Ho$_3$: Audit tenure has no effect on audit quality of quoted deposit money banks in Nigeria.

Below in Table 6 is the output of the analysis conducted:

Table 6: Pooled Regression Results between ADR, ADT and BSZ

Dependent Variable: ADR

Method: Least Squares

Date: 05/22/23   Time: 12:09

Sample (adjusted): 1 130

Included observations: 130 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.467921	0.096086	4.869808	0.0000
ADT	0.085042	0.103588	0.820969	0.4132
BSZ	1.81E-11	1.12E-11	1.612166	0.1094

R-squared	0.226621	Mean dependent var	0.592308
Adjusted R-squared	0.211292	S.D. dependent var	0.493306
S.E. of regression	0.490513	Akaike info criterion	1.436078
Sum squared resid	30.55663	Schwarz criterion	1.502252
Log likelihood	-90.34507	Hannan-Quinn criter.	1.462967

| F-statistic | 1.736638 | Durbin-Watson stat | 0.427173 |
| Prob(F-statistic) | 0.180267 | | |

Source: Researcher's computation through E-view 9.0 statistical package

4.2.3.1 Interpretation of Regression Result

In Table 6, R-squared and adjusted Squared values were (0.227) and (0.211) respectively. The indicates that all the independent variables jointly explain about 23% of the systematic variations in audit reputation (ADR) of our samples banks over the ten years periods (2013-2022). Table 6 reveals an R-squared value of 0.227,which represents the coefficient of multiple determinations imply that 23% of the total variation in the dependent variable (ADR) of quoted deposit money banks in Nigeria is jointly explained by the explanatory variables (ADT and BSZ). The R-squared of 23% did not constitute a problem to the study because the F- statistics value of 1.736638 with an associated Prob.>F = 0.180267 indicates that the model is fit to explain the relationship expressed in the study model. The value of adjusted of 23% also shows that 77% of the variation in the dependent variable is explained by other factors not captured in the study model. This suggests that apart from ADT and BSZ, there are other factors that mitigate ADR of quoted deposit money banks in Nigeria.

4.2.3.2 Test of Autocorrelation:
using Durbin-Waston (DW) statistics which we obtained from our regression result in table 6, it is observed that DW statistics is 0.427173, and an Akika Info Criterion and Schwarz Criterion which are 1.436078 and 1.502252 respectively also further confirms that our model is well specified. The results in table 6 illustrated that audit tenure (ADT) has a negative but significant relationship with audit reputation measured with a beta coefficient (β_1) and t- value of 0.085042 and 0.820969 respectively and p- value of 0.413 which is not statistically significant at 5%. Based on the empirical evidence that suggests that audit tenure has a positive insignificant effect on audit quality of quoted deposit money banks in Nigeria at 5% level of significance, thus, the null hypothesis of the study is accepted.

This is in contrast to the finding made by Ilaboya and Ohiokha (2014) which revealed that there is a negative relationship between auditor's independence, audit firm size, audit tenure and audit quality.

CONCLUSION AND RECOMMENDATIONS

Relying on the results obtained from the analysis, it is concluded that audit committee independence affect audit quality of quoted Nigerian deposit money banks. Also, audit fees have

affected audit quality of quoted Nigerian deposit money banks. Another observation is that audit tenure has a negative effect on audit quality of quoted Nigerian deposit money banks.

Based on the findings, the study recommended the followings:

i. Auditors of Nigerian deposit money banks should live up to the expectations of their profession, these can be achieved by upholding the ethics of their profession as they observe ethical codes such as integrity, objectivity and confidentiality.

ii. The auditor should be remunerated on the basis of work experience, qualification, duration of the audit assignment, and background profile. The payment of the adequate audit fee will encourage the auditor to do the assurance engagement assignment according to the high degree of standardization expected.

iii. The professional bodies should always watch governmental actions and raise alarm on policies which could hinder smooth discharge of Auditors' responsibility, especially in the audit of deposit money banks in Nigeria.

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MACRO ECONOMIC FACTORS AND PENSION FUND SUSTAINABILITY IN NIGERIA: EVIDENCE FROM 2013-2020

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ABSTRACT:

Globally, the sustainability of pension funds is now a concern, from the fear of an inverted pyramid to soaring inflation and until recently, failures of Liability Driven Investments (LDI) an exotic financial instrument hitherto designed to withstand financial uncertainties. Nascent pension funds like the contributory pension scheme will need to rejig its strategies to avert a crisis. In this study, the ratio of Pension Liability to Pension Asset proxied as a measure of pension fund sustainability which is the dependent variable of the study, while Inflation rate was measured with Average rate of returns rate and ratio of Pension Assets to Gross Domestic Product. Using regression to test the data of ten years 2013 to 2022, the result indicates that the inflation rate and average returns rate had a strong and positive but non-significant effect on the sustainability of pension fund (p-values 0.303 and 0.081 > 0.05). This result is a pointer to the fact that the sustainability of the Pension Fund is tied to the performance of the economy and the growth of the pension assets. Managing fund performance by risk diversification is thus recommended for fund managers towards enhancing fund performance. Macroeconomic stabilization as the government should take steps to grow the economy because of the cascading effect on pension sustainability. Policymakers should endeavour to strengthen its supervisory and monitoring roles, prudential laws, and supportive legislation in other to ensure that ensure that pension funds are managed responsibly.
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1. INTRODUCTION

Pension is the sum of money paid regularly to a person who no longer works because of age, or disablement or to his widow or dependent children by the state, by his former employer from funds to which he and his employees have both contributed (Olaniyi, 2001). There are different types of pension schemes, such as the Defined Benefit (DB) Pension Scheme and the Defined Contribution (DC) Pension Scheme. A Contributory Pension Scheme is a retirement savings plan where both

the employer and employee make contributions towards the employee's pension fund. This type of scheme is typically found in the public sector or large corporations. The contributions made by the employee are deducted from their salary regularly, usually monthly. The employer also makes contributions to the scheme on behalf of the employee, based on a certain percentage of the employee's salary. Such contributions are invested and accumulate over time, to provide a steady income for the employee after retirement. Another advantage is that these schemes often offer additional benefits, such as disability benefits or death benefits, which can provide additional financial protection for employees and their families.

A sizeable portion of the worldwide investment portfolio is made up of pension plans. The fact that they provide financial security after retirement, expand investment, banking, and insurance services, and foster the growth of capital markets all serve to highlight their significance and the development of global economies (Sharpe, Scott, & Watson, 2007; Yermo, 2008). Overall, Contributory Pension Schemes provide a way for employees to save for retirement and secure their financial future, with the added support and contributions from their employer. The United Nations 2015 embarked on 17 life-changing sustainable development goals aimed at ending extreme poverty among other targets by the year 2030. The first and second goals have to do with ending poverty and eliminating hunger. OECD has written a lot about old age poverty as a global trend that needs to be checked. Most countries that reforms embarked upon by nations towards changing their pension systems emphasized the accumulation phase while giving less attention to the decumulation phase. But James and Vittas (2000) have argued that for a successful new pension system, the decumulation phase must also be well organized and efficient. However, one of the principal tools needed to checkmate old age poverty among others is a sustainable retirement income from a robust Pension Fund. According to the World Bank (2019), a well-designed pension system should not only have the objective of reducing old-age poverty but also make for income smoothing throughout an individual's lifetime (World Bank, 2019). Pension fund sustainability refers to the ability of a pension fund to meet its financial obligations and provide retirement benefits to its members over the long term. It involves careful management of the fund's investments, contributions, and expenses to ensure that it remains financially viable and able to fulfil its commitments. According to the World Bank (2019) conceptual framework, a sustainable pension system refers to one that is financially sound and maintainable in a foreseeable period under reasonable assumptions.

Macroeconomic factors are significant financial, natural, or geopolitical events that have a broad impact on the regional or national economy, and a sizable population and are outside the direct

influence and control of the organisation. The GDP, unemployment rate, interest and inflation rates, the money supply, natural disasters like earthquakes, and the threat of domestic or international conflict are among the variables that are related to the status of the economy and governmental policies. Investors closely monitor the signs. The key macroeconomic variables that influence pension funds are interest and inflation rates, GDP, exchange rates, etc. By presently constructing on rights that will provide a guaranteed income to the employee or his dependents at retirement or death, pension systems are intended to offer employees security (Ngu, 2014). Accordingly, the main objective of the pension plan is to guarantee that pensioners' post-service lives are not compromised by a lack of funds (Yusuf, 2014). However, given the shortcomings and restrictions of the earlier pension changes, the government was forced to start over with new reforms, which resulted in the creation of Nigeria's Contributory Pensions Scheme in 2004. Several studies have been undertaken to evaluate the impact of macroeconomic factors on pension funds resulting in mixed and sometimes inconclusive findings (Akwimbi, 2020). Prior studies were mainly conducted before the reform (Nwagwu, 2014; Eme, Uche, & Uche, 2014; Omah, Anifowose, & Ogundina, 2013). The researcher plans to investigate how the macroeconomic factors affect the contributory pension scheme sustainability in the Nigerian economy. This study sought to assess the effect of average returns and inflation on pension fund sustainability in Nigeria using annual data spanning the period from 2013 to 2022.

1.1 Objectives of the Study

The main objective of the study is to evaluate the effect of macroeconomic factors on pension fund sustainability. The specific objectives of the study are as follows:

1. To ascertain the effect of the inflation rate on pension fund sustainability in Nigeria.
2. To investigate the effect of the average rate of return on pension fund sustainability in Nigeria.

1.2 Research Hypotheses

The following hypotheses were stated in null forms;

Ho_1:   Inflation has no significant effect on the sustainability of pension funds in Nigeria.

Ho_2:   The average rate of return has no significant effect on the sustainability of pension funds in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Pension Scheme

A pension scheme, also known as a retirement plan or pension plan, is a financial arrangement that provides income to individuals during their retirement years. It is designed to help people save money over their working lives so that they can have a secure and comfortable retirement. Pension schemes can be provided by employers to their employees as workplace pensions or can be set up individually as private pensions. They may offer tax advantages or employer contributions to encourage saving for retirement.

The main goals of pension and retirement policies are to: (i) provide adequate income in old age while ensuring (ii) financial sustainability and (iii) maximise employment (i.e. through incentives in support of stable formal work careers and longer working lives for women and men). The World Bank Pension primer has designed a combination of primary and secondary yardstick to access a good pension system that is well reformed to absolve current realities which favour the funded pension system over Pay As You Go. These criteria include: Adequacy, Predictability, Equitability, Affordability, Robustness and Sustainability (APEARS)

1. Adequacy: Here an adequate pension system is expected to provide enough benefits that are capable of averting old-age poverty to an acceptable level be it country-specific or absolute. This will entail capturing a great percentage of the aged population as well as providing them with a reliable source of income to support lifetime consumption needs. From the lens of this criteria one can state that the current system falls short of this standard considering the fact with a working population of about 60 million only 8.5million are registered under the scheme as of March 2020. This confirms the assessment of Abdulazeez (2015) that a large proportion of the population remains inadequately covered by the contributory system despite the seemingly laudable benefits of the contributory pension scheme Furthermore, the term enough benefit seems a mirage to even the few retirees covered by the contributory pension scheme because only a few of them has been privileged to witness monthly pension enhancement which was subject to the returns from their pension investment, but with inflation cruising at double-digit the increment of 5% average still cannot level the purchasing power erosion.

2. Predictability: A predictable pension scheme is meant to 1) provide retirement income that is specified in the law and is not subject to frequent policy and administration changes 2) protect the retiree from inflation, wage and interest adjustment before and after retirement and 3) defend the retiree from the longevity risk characterizing the defined contributory

pension scheme. The Pension Reform Act 2014 section 4 (1) provided for predictability of the amount of pension payable which is 8% of the workers' Basic salary, Housing and Transport allowance (BHT) while the employer brings counterpart funding of 10% of the same BHT. However, in an inflationary environment like ours, pension funds need to be effectively managed for good returns for pensioners in the future (Ajibade, Jayeoba & Aghahowa, 2018) Also, subsequent regulations from the national pension commission provided that the target of the scheme pays a retiree 50% of his BHT as monthly pension upon retirement while between 20 to 49 per cent of the RSA balance with be paid as a lump sum. However, contributors with an RSA balance below N550,000 will be paid en bloc with no further monthly pension. On the second point apart from section 116 which insulated pension from garnishee proceedings there are not provisions to protect the contributor from inflation at all but the provisions of section 83. All income earned from the investment of pension funds under this Act shall be credited to the individual Retirement Savings Accounts of beneficiaries and section 10 which excludes pension earnings from taxes seems to address this to a great extent. Finally, sections 81 and 82 of PRA 2014 that provided for the Statutory Reserves Fund and Pension Protection Fund addressed longevity risk satisfactorily. While statutory reserve funds by PFAs take care of contributions whose funds could not last as agreed because of wrong computations or the outcome of a bad investment decision, Pension Protection will be used to implement the Minimum Guarantee Pension.

3. Equitability: An equitable pension scheme is expected to redistribute income from the rich to the poor and should not tax pension income. The contributory pension scheme is an individualized account system that specifies what you contribute and what you earn the only aspect that project equitability is the fact that all contributions received are unitized making it impossible for a contributor with a higher RSA balance to obtain a higher rate of return more than a lower contributor. Also, individual pension fund administrators exclude contributors with monthly pension remittances below N1,000 from the PenCom-approved monthly admin fee of N100 per monthly remittance thereby shifting the admin fee burden off them. Furthermore, the use of proceeds from the statutory reserve fund to take care of contributors with issues on the fund balance is still another form of income redistribution because the owners of well-funded RSAs will not take part in this arrangement. The 8/10 per cent structure that places a higher burden on the contribution is equal redistribution of income from the employer to the employee.

4. Affordability. The ease with which provision is made for pensions is referred to as affordable. The current system that takes only 8 per cent of the worker's basic salary,

housing and transport allowances to a great extent is affordable compared with the 10 per cent remitted by the employer. Before now the rate was 7.5/7.5 Employer/Employee. The overall effect of the increase in the contribution rate and the widening of the base of emoluments in the 2014 Pension Act as it relates to affordability has not been tested within the framework of the economic reality in Nigeria (Sogunro, Ayorinde, & Adeleke, 2019). Making pension deductions a tax-allowable expense further makes the affordability apparent in section 10 notwithstanding the provisions of any other law, contributions to the Scheme under this Act shall form part of tax-deductible expenses in the computation of tax payable by an employer or employee under the relevant income Tax Law.

5. Robustness: The robustness of a pension scheme is a function of its ability to incorporate a shock-absorbing mechanism in the framework. These shock-absorbing measures should be able to address volatility arising from changes in the Political, Economic and Demographic scenes. The current pension style in Nigeria did not incorporate into her pension architecture mechanism to address these issues directly. Oduwole (2015) investigated the returns rate of 10 pension fund administrators between 2007 and 2014 his findings show that despite growing in nominal terms the pension fund value declined in real terms because the earnings percentage was below the inflation rate. However, a discerning contributor who knows the inflation growth rate can determine the number of additional contributions he can make and commence so via voluntary contributions since there are no treasury-adjusted income products available to insulate them from the vagaries of inflation that are not in any way abating. The periodic monthly pension enhancement is equally an element of robustness even though the application is not general. The available Statutory Reserves by PFAs from where contributors that suffer losses attributable to PFA error are paid while the payment of compensation to eligible pensioners for shortfall or financial losses arising from investment activities is from the Pension Protection fund held by the commission.

6. Sustainability: Given a reasonable number of assumptions a pension system be able to maintain sound financial key-satisfying indicators that will project the ability to meet pension payment obligations over a specific period. When this is achievable then the system could be called a sustainable one. Note that the unsustainability of the previous Pay As You Go system practised in Nigeria which according to Nwanna and Ogbonna (2019) amounted to N1.787 trillion unpaid pension liabilities as of 1999 was what prompted the adoption of the Defined Benefit Scheme the Chilean model Sogunro et al (2019) posits that while various developed countries designed indicators used to measure the sustainability

of pension, no single Nigeria took no clear measure to assess the adequacy of retirement benefit.

Nigeria's pension system was based on the British pension system and was established in 1951. This is mostly because Britain, Nigeria's colonial overlord, established the Pension Ordinance, which gave rise to the country's pension system. However, the project was primarily meant to assist British nationals who were stationed in Nigeria. The 2014 Pension Reforms Act (PRA) eliminated the 2004 pension legislation that had been designed to prevent a sharp decline in workers' financial capacity and standard of living upon the cessation of retirees' monthly income and benefits. PRA seeks to give retirees, both public and private, a decent income, which should increase their savings, investments, and consumption. The idea was to use financial investments to promote economic growth (FGN, 2014).

2.1.2 Sustainability of Pension Fund

Sustainability could be viewed from the perspective namely the ability to pay the retiree who agreed on a monthly pension for the rest of his life which is what the Insurance companies offer as an annuity which guarantees payment of a fixed amount over the retiree's lifetime. Although the Programmed withdrawal model offered by Pension Fund administrators is meant to pay over an estimated life the interest element that goes back into the retiree account allows for extra income that increases the income replacement rate making it possible to pay beyond the estimated life span coupled with the availability Pension Protection fund as specified in section 82 of the pension reforms act. This allows the retiree whose fund experiences a shortfall to be compensated from the reserve. But the real sustainability will be the ability of the pension fund to pay the retiree monthly pension that is inflation adjusted so that the purchasing power of the income provided will be able to prevent old age poverty which is one major global aim of the modern pension fund. At the commencement of the contributory pension scheme in Nigeria only one pension fund existed, however in 2009 Retiree fund was carved out of the fund to handle the decumulation stage of the pension scheme given the peculiarity of the need for liquidity and lower risk investment options. The real test of sustainability can only be confirmed at the decumulation stage when retirees begin to draw from their contributions.

2.1.2.1 Twenty-Five per cent

The pension reforms acts allow a contributor who temporarily lost his/her job to access 25 per cent of his Retirement Savings Account balance four months after losing his job so long as he is not up to 50 years of age. This window no doubt decreases the amount that will be available for this contributor upon formal retirement. Although contributions to this account are allowed once he gets another job this window can only accessed once in a lifetime.

Table 1: 25 Percent Pension Decumulation 2011 to 2020

25% DECUMULATION	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
25% Amount Billion	1.82	3.46	5.47	8.07	14.61	15.66	20.68	20.86	19.06	20.3
25% Number	11,883	18,772	24,135	24,145	52,172	44,025	57,416	52,414	37,674	**38,254**

Source; National Pension Commission

2.1.2.2 Death Benefit Payout

Contributors who died before or after retirement will have their RSA balance paid to their named beneficiary in a valid will confirmed by the Probate Court or an executor named in a letter of administration issued by the Probate court.

Table 2: Death Benefit Payout Decumulation 2011 to 2020

DEATH BENEFIT PAYOUT	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Death Benefit AMT Billion	7.93	24.16	25	8	7	16.94	27.67	28.68	27.22	31.09
Death Benefit NO	3,805	9,115	8,916	23,446	21,549	4,874	8,231	8,803	6,609	6,731

Source; National Pension Commission

2.1.2.3 Annuity Payout

The Pension Act gives a retiree the option of either embracing programmed withdrawal or using the balance in his RSA account to pay for insurance annuity premiums and subsequently will be getting a fixed monthly pension for life. This has been a major decumulation point for pension retirement funds and the trend has been going high recently the PFAs are putting up a spirited fight to curtail the trajectory.
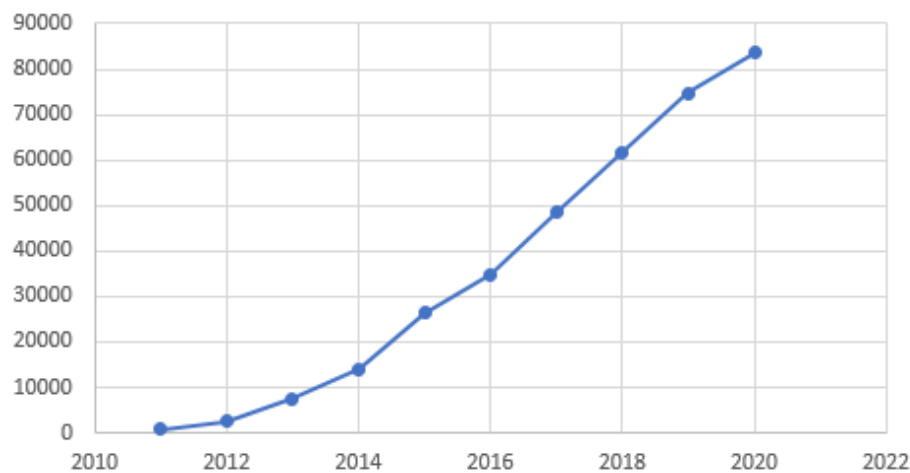
Table 3: Annuity Payout Decumulation 2011 to 2020

ANNUITY PAYOUT	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
No of Retirees on Annuity	706	2,434	7,499	14,062	26,333	34,876	48,539	61,652	74,805	83,568
Annuity Premium Billions	3.06	12.09	24.75	32.62	60.14	40.97	71.05	87.23	78.43	57.22

Source; National Pension Commission

2.1.2.4 En bloc Payment

Retirees whose Retirement Savings Account balances are insufficient to fund 50 per cent of their last emoluments (i.e. Basic, Housing and Transport) are approved for en bloc payment of RSA balances. The implication is that they will get a one-off payment and thereafter there will be no monthly receipt of pension.

Table 4: En Bloc Decumulation 2011 to 2020

En Bloc Payout	2013	2014	2015	2016	2017	2018	2019	2020
En bloc number	9,387	11,496	15,252	12,328	14,250	13,172	10,511	7,778
En bloc Amount billions	2.5	2.85	4.15	3.33	3.83	3.73	2.35	2.35

2.1.3 Sustainability Strategies

The fear of old age poverty is one of the major reasons pension funds crave sustainability. Under the contributory pension scheme contributors with an RSA balance less than N555, 000 are paid en bloc because the accumulated fund over their work period is not adequate to sustain a reasonable monthly pension. But in a recent secular PenCom introduced programmed withdrawal en bloc which requires that contributors with an RSA balance of more than N550, 000 but got a monthly pension of less than one-third of the current minimum wage (N30, 000). "Where the RSA balance cannot provide 50% of the retiree's Annual Total Emolument as monthly/quarterly

pension, such retiree shall be entitled to a concessionary Regulatory Lumpsum of 25% of the RSA balance. Also, where the RSA balance cannot provide a monthly/quarterly pension or annuity of at least one-third of the prevailing minimum wage, the retiree shall be allowed to take the entire balance in the RSA en bloc" (PenCom 2022).

2.1.3.1 Programmed Withdrawal

At the point of retirement contributors with sufficient balance in their account are placed on monthly income to be paid over their expected life span and beyond. They are paid beyond life span because returns on their RSA balance invested are added back into their RSA and as a result of this, some contributors have their monthly income enhanced periodically.

2.1.3.2 Life Insurance Annuity

An annuity was defined in section 120 of the PRA 2014 as a right to receive periodic payments usually fixed in size for life or a term of years. Retirees with a balance big enough to purchase a life annuity will pay a one-off premium to the life insurance company to enable get monthly pension payments from a chosen life annuity provider. The contract is usually for life and therefore sustainable for a lifetime. However, because the amount is fixed inflation will make it impossible for that amount to meet the purchasing needs of the retiree over time as he will not be entitled to any possible enhancement like those on programmed withdrawal.

2.1.3.3 Statutory Reserve Fund

Section 81 of the PRA requires each pension fund administrator to set aside 12.5 of their annual net profits to reserve that will serve as a contingency fund from where certain claims including sustainability payments are settled. The commission has since asked PFAs to pay some of their customers who have exhausted their RSA balance either because of wrong calculation by the PFA at the point of retirement or payment of huge arrears which reduced the investible capital at the beginning.

2.1.3.4 Pension Protection Fund

The Pension protection fund is equally an act of the law (Pension Reforms Act 2014) in section 82 the fund consists of contributions from Pension Fund Administrators, Pension Fund Custodians, the National Pension Commission and interest earned from investing in the fund. Proceeds from this fund will be used for;

1. the funding of the minimum guaranteed pension according to section 84 of this Act;

2. the payment of compensation to eligible pensioners for shortfall or financial losses arising from investment activities; and

3. any other purpose deserving protection with the Pension Protection Fund as the Commission may, from time to time, determine the essence of this fund to sustain payments to contributors who may outlive their estimated life span or suffer depleted RSA balance because of one adverse outcome or the other.

2.1.3.5 Periodic Inflation Adjusted Pension

The Government Employees Pension Fund (GEPF) of South Africa announced that an annual pension increase of 5.5 per cent would be granted to its pensioners as of April 1. his pension increase was based on the 5.5 per cent inflation rate for the 12 months ending November 30, 2021, thus making the increase equal to 100 per cent of the Consumer Price Index (CPI) and higher than the 7 per cent of Consumer Price Index (CPI) provided in terms of GEP Law and Rules, This is part of activities aimed at sustaining the purchasing power of the monthly pension to keep away old age poverty.

Table 5: Ratios of Pension Assets to GDP across some Selected Countries

s/n	Country	Ratio	s/n	Country	Ratio
1	Canada	180	8	Rwanda	12.67
2	USA	170	9	Malawi	11.74
3	UK	124	10	Uganda	8.96
4	Namibia	100	11	Nigeria	7.98
5	Chile	76	12	Ghana	5.46
6	Singapore	42	13	Zambia	2.82
7	Kenya	13.3	14	Egypt	1.52

Source: World Bank (2019)

2.1.3.6 Inflation and Sustainability of Pension Funds

Inflation can have a significant impact on pension funds. Firstly, inflation erodes the purchasing power of money over time. For pension funds, this poses a challenge as the value of the fund's assets may not keep up with the rising cost of living, potentially leading to a decrease in the real value of pensions paid out. Secondly, pension funds typically invest in a variety of assets such as stocks, bonds, and real estate. Inflation can affect the returns on these investments. For example, fixed-income investments like bonds may have lower real returns during periods of high inflation, reducing the overall growth of the pension fund. This can impact the ability of the fund to generate

sufficient returns to meet future pension obligations. Lastly, Many pension plans offer cost of living adjustments (COLAs) to help mitigate the impact of inflation on pension payments. These adjustments are meant to ensure that the purchasing power of pensions remains relatively stable over time. However, if the COLAs do not keep pace with the actual rate of inflation, pensioners may still experience a decline in their real income. In March 2022 the Government Employees Pension Fund of South Africa announced an increase in the monthly pension income of its retirees by 5.5 thus matching the inflation rate and consumer price index.

2.1.3.7 Average Rate of Return and Sustainability of Pension Funds

The average rate of return on a pension fund can have a substantial impact on its overall performance. The average rate of return directly affects how much the pension fund grows over time. A higher rate of return will lead to faster growth, potentially increasing the fund's value and the amount available for future pension payments. Secondly, the average rate of return plays a crucial role in determining whether a pension fund is adequately funded. If the fund consistently achieves a strong average rate of return, it may accumulate enough assets to meet its future liabilities without requiring additional contributions. On the other hand, a lower average rate of return might necessitate higher contributions from employers or employees to ensure sufficient funding. Lastly, The average rate of return can impact the ability of a pension fund to generate income to meet ongoing pension obligations. A higher rate of return means that the fund is generating more income, potentially allowing for higher pension payments to retirees. Conversely, a lower rate of return may limit the fund's ability to keep up with pension obligations or necessitate adjustments to payment levels.

2.2 Theoretical Review

The 1995 Deferred wage theory by Rebitzer and Taylor will be the basis for this research work, Deferred wage theory views pension as yesterday's salary saved today and to be collected tomorrow. The Contributory Pension Scheme allows both the employer and the employee to put funds aside within the duration of the contract of employment for the benefit of the employee later. In some companies' pension expenses are treated as part of wages and salaries expenses. The Pension Reforms Act 2014 exempts pension deductions from taxes which makes it possible for employees to save more for their retirement under voluntary contribution from which only 50 per cent of the amount saved could be accessed every two years while the rest will be part of retirement fund to be drawn from upon retirement.

2.3 Empirical Review

Baridoo and Micah's (2019) evaluation of the relationship between contributory pension funds and economic growth in Nigeria between 2014 and 2016 finds a negative and insignificant correlation between private pension contribution and GDP and per capita income.

Eke and Onafaleyo (2018) investigated the relationships between investments in housing infrastructure, the safety-equity factor, and the management of Nigeria's public pension funds. The study employed an ex post facto research methodology and utilised secondary data sourced from legislative acts, gazettes, and the National Bureau of Statistics. The results of this study showed that public pension funds have substantial relationships with the safety of funds and equity return variables, among other essential requirements needed to grow and maintain public pension contracts.

Ameh et al. (2017) assessed the impact of pension fund schemes on the economic growth of Nigeria and discovered that the assets of pension funds, or pension contributions and savings, had a positive but insignificant impact on economic development.

3. MATERIAL AND METHOD

The study adopted the correlational research design. The study utilized time series data from PenCom and NBS from 2013 to 2022. The variables were measured as: sustainability is the ratio of liabilities to assets. According to the European Commission (2017), sustainability relates to the fiscal and financial balance between revenues and liabilities in pension schemes. The inflation rate is measured using CPI; the average returns rate is as shown in the reports and the ratio of pension assets to GDP.

The regression equation:

$$SUS = \square + \beta ARR + \beta INF + \beta PGDP + \varepsilon$$

Where:

SUS   -   Sustainability (Liability/Assets)

ARR   -   Average Rate of Returns

INF   -   Inflation

PGDP   -   Pension Asset/GDP

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistics

Table 6: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Sustainability (Liability/Assets)	10	.33	.52	.4487	.05291
Average Rate of Returns	10	11.60	15.39	13.5463	1.13481
Inflation	10	8.10	16.50	12.1225	3.06832
Pension Asset/GDP	10	5.07	8.08	6.2613	.90754
Valid N (listwise)	10				

Source: SPSS Ver. 25

The minimum value of SUS was .33 and the maximum value was .52; the average value was .4487 and the standard deviation was .05291. The minimum value of ARR was 11.60 and the maximum value was 15.39; the average value was 13.5463 and the standard deviation was 1.13481. The minimum value of INF was 8.10 and the maximum value was 16.50; the average value was 12.1225 and the standard deviation was 3.06832. The minimum value of PGDP was 5.07 and the maximum value was 8.08; the average value was 6.2613 and the standard deviation was .90754.

4.1.2 Correlation Matrix

Table 7: Correlations

		Sustainability (Liability/Assets)	Average Rate of Returns	Inflation	Pension Asset/GDP
Sustainability (Liability/Assets)	Pearson Correlation	1	-.346	-.266	-.745[*]
	Sig. (2-tailed)		.327	.457	.013
	N	10	10	10	10
Average Rate of Returns	Pearson Correlation	-.346	1	.728[*]	.824[**]
	Sig. (2-tailed)	.327		.017	.003
	N	10	10	10	10
Inflation	Pearson Correlation	-.266	.728[*]	1	.701[*]
	Sig. (2-tailed)	.457	.017		.024
	N	10	10	10	10
Pension Asset/GDP	Pearson Correlation	-.745[*]	.824[**]	.701[*]	1
	Sig. (2-tailed)	.013	.003	.024	
	N	10	10	10	10

*. Correlation is significant at the 0.05 level (2-tailed).

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

Source: SPSS Ver. 25

The SUS negatively correlated with ARR (-.346), INF (-.266), and (-.745). ARR is significantly and positively associated with INF (.728*) and PGDP (.824**). The INF is significantly and positively associated with PGDP (.701*).

4.2 Tests of Hypotheses

The following hypotheses were tested in this study:

Ho_1:   Inflation has no significant effect on the sustainability of pension funds in Nigeria.

Ho_2:   The average rate of return has no significant effect on the sustainability of pension funds in Nigeria.

Given below are the outcome of the regression analysis conducted:

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.904[a]	.817	.725	.02773

a. Predictors: (Constant), Pension Asset/GDP, Inflation, Average Rate of Returns

Source: SPSS Ver. 25

The model had an R-value of .904, the R^2 value was .817 and the adjusted R^2 value was .725 which means that 72.5% variation in our DV, i.e., SUS was accounted for by the model explanatory variables.

Table 9: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.021	3	.007	8.919	.012[b]
	Residual	.005	6	.001		
	Total	.025	9			

a. Dependent Variable: Sustainability (Liability/Assets)

b. Predictors: (Constant), Pension Asset/GDP, Inflation, Average Rate of Returns

Source: SPSS Ver. 25

The model had an F-statistic value of 8.919 with a p-value of .012; since the p-value is less than .05 we conclude that the model is statistically significant at 5%.

Table 10: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.505	.132		3.825	.009
	Average Rate of Returns	.032	.016	.695	2.091	.081
	Inflation	.005	.005	.297	1.126	.303
	Pension Asset/GDP	-.089	.019	-1.526	-4.776	.003

a. Dependent Variable: Sustainability (Liability/Assets)

Source: SPSS Ver. 25

4.2.1 Decision: The t-statistic of INF was 1.126 with a p-value of .303 which is greater than 0.05; thus, null form of hypothesis one was accepted. This implies that inflation has a strong and positive but no significant effect on the sustainability of pension funds in Nigeria. Similarly, the t-statistic of ARR was 2.091 with a p-value of .081 which is also greater than 0.05. thus, null form of hypothesis two was accepted. This means that the average rate of return has no significant effect on the sustainability of pension funds in Nigeria. This result somewhat supports Baridoo and Micah (2019) that contributory pensions have a positive significant relationship with real GDP.

CONCLUSION AND RECOMMENDATIONS

The study concludes that macroeconomic factors play a key role in the sustainability of pension funds. Quantitative and correlational research design using a linear regression model was used to assess the effect of the inflation rate and average rate of return on pension fund sustainability. The study findings show that these factors had a non-significant positive effect on pension fund sustainability.

i.   Managing fund performance by risk diversification is hereby recommended towards enhancing fund performance. Risks that pension funds managers must carefully evaluate and manage should include interest rate variations and market volatility. Hencem deploying hedging and asset-liability matching effectively as two tactical strategy response could assist fund managers in reducing these risks and safeguard the fund's long-term viability.

ii.   Macroeconomic stabilisation: As sustainability of pension funds is also influenced by the laws and regulations, it is important that Policymakers endeavour to strengthen its supervisory and monitoring role, prudential laws, and supportive legislation as a way of ensuring that pension funds are managed responsibly. In the end, preserving a pension fund's long-term viability necessitates striking a rational balance between contributions, investments, governance, risk management, and legal compliance. Strategies must be

routinely reviewed, monitored, and adjusted to accommodate shifting consumer preferences and market dynamics.

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AUDIT QUALITY AND ACCOUNTING GOING CONCERN OF LISTED MANUFACTURING COMPANIES IN NIGERIA: ALTMAN Z-SCORE APPROACH

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ABSTRACT:

The deluge of audit failure in the world (Nigeria inclusive), has brought great disappointment to Users of financial reports, making audit quality the subject of focus. The collapse of 83 companies listed on the Nigerian Exchange Group, from which 65 were manufacturing companies in the space of 11 years, 2012-2022, is worrisome and thus questions the quality of the audit performed by the auditors on those financial statements. In line with these problems, this study examined the effect of audit quality on accounting going concern of listed financially distressed and healthy manufacturing companies in Nigeria from 2012 to 2022. The study employed ex-post facto research design. The secondary data for the 12 financially distressed and 12 financially healthy listed manufacturing companies sampled were sourced from the Nigerian Exchange Group, facts books and related companies' Annual Financial Reports for the periods covered in the study. In determining how audit quality affects the accounting going concern of listed financially distressed and healthy manufacturing companies in Nigeria using the Altman Z-score approach as a yardstick for comparison. Particularly, pre-regression analysis which included descriptive statistics analysis, correlation analysis, and normality of data analysis were conducted. The P-values of the parameters obtained from, the mixed effect and the random effect regression analysis technique were used to test the financially distressed and financially healthy manufacturing companies' hypotheses respectively. Notably, the outcome from the panel regression estimations revealed that: hiring the services of a Big four audit companies significantly improved the going concern status of listed manufacturing companies in Nigeria be it financially healthy or financially distressed; the effect of joint audits on accounting going concern of listed manufacturing companies in Nigeria is mixed: while it was insignificant for financially distressed companies, it was significant for financially healthy companies during the period. The study concluded that the effect of audit quality on accounting going concern should be juxtaposed with the financial status (distressed/healthy) of the companies, to obtain a more robust and unique solution to problems faced by listed manufacturing companies in Nigeria. The study recommended among others that listed manufacturing companies in Nigeria should engage the services of Big Four audit companies especially as the services of a Big Four audit companies significantly improve the financial health status of both financially distressed and financially healthy manufacturing companies in Nigeria.
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1. INTRODUCTION

Audit quality encompasses the key elements that create an environment by maximizing the likelihood that quality audits are performed consistently. It plays a crucial role in determining the accuracy of accounting going concern assessments. Improving the audit quality through enhanced professional skepticism, auditor expertise, and regulatory oversight can result in more accurate financial reporting and better-informed stakeholder decision-making. For decision-making purposes, information produced by an audit with high audit quality will be highly helpful, hence, auditors must deliver high-quality audit services. And where clients encounter going concern issues, auditors with high audit quality are more likely to offer a going concern audit opinion. The essence of going concern is on the company's financial statement, which must reflect the company's value to determine its existence in the future. A company that is established must have a goal of being able to maintain its business continuity. The auditor has the responsibility to assess whether there is any doubt to his or her opinion on the financial report, based on auditor's regulations, and is also required to provide an opinion regarding the corporation's ability to survive in a period of no more than one year from the date of the audit report (Ikatan, 2001). But the question remains, what if the audit opinion does not provide adequate early warning signals of impending client failure in the financial statement? Then, other red flags to look out for are the measures of audit quality, which include; audit tenure, audit delay, audit fees, audit firm size, joint audit, and so on.

The condition in which a company experiences financial difficulties and is threatened with bankruptcy is known as financial distress. Companies that experience bankruptcy will begin with financial distress conditions in the company. However, if the company is experiencing financial distress, it is not certain that it will end in bankruptcy (Andriyani & Dyatmiko, 2021). Financial distress is a condition in which a company experiences financial difficulties by experiencing a stage of decreasing the company's ability to pay debts to creditors when they fall due (Platt, 2002; Andriyani et al., 2021). Financial distress shows that the company cannot cover current obligations, for example, unpaid debt. Characteristics such as size, maturity, industry, and complexity are found to be related to financial distress (Lu & Ma, 2016). Janes (2005) finds that poor profitability and high financial leverage result to financial distress. A company is said to be financially healthy, if it encompasses the ability to generate revenue, have sufficient cash flow, financial competence and return more money to investors. Based on the explanation above, the researcher is interested in conducting the study audit quality and accounting going concern in Nigeria Altman Z score approach.

1.1 Objectives of the Study

The broad objective of the study was to determine how audit quality affected the accounting going concern of listed manufacturing companies in Nigeria using the Altman Z score approach as a yardstick for comparison. The specific objectives of the study were to determine:

1. the effect of audit firm size on the accounting going concern of financially distressed and healthy manufacturing companies using Altman Z score approach.

2. the influence of joint audit on the accounting going concern of financially distressed and healthy manufacturing companies using Altman Z score approach.

1.2 Research Hypotheses

To achieve the objective of the research, the following null hypotheses were tested:

i. H_0: There is no significant difference between the effect of audit firm size on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

ii. H_0: There is no significant difference between the effect of joint audit on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Audit Quality

Audit quality is the capability of an auditor in discovering and reporting any errors in a financial statement, (Amahalu, Okeke & Obi, 2017). Audit quality is the market-estimated joint likelihood that a specific auditor would both detect and disclose a violation in the client's accounting system. The entire quality of the audit exercise is represented by audit quality (Kaoje & Mohammed, 2022). The failure of auditors to discover serious misstatements in financial statements, which raises issues about trustworthiness (Iliemena & Chibuzor, 2019), is one of the primary threats facing investors, necessitating a focus on audit quality.

2.1.2 Accounting Going Concern

Companies prepare their annual financial statements on a going concern basis except when management either intends to liquidate the entity or to cease operations or has no realistic alternative but to do so, (International Federation of Accountants Handbook, 2010 Edition). If a company is not a going concern, this could result in the impairment of the company's assets (to reflect forced sale values) and also an upward adjustment of liabilities due to penalties for early settlement and or breach of loan terms or covenants, (Mwendamo, 2010). The going concern assumption is fundamental in the preparation of a company's financial statements as it impacts the

basis upon which the assets and liabilities of a company are recorded, (International Federation of Accountants Handbook, 2005 Edition). Auditing standards require the auditor to obtain sufficient and appropriate audit evidence about the appropriateness of management's use of the going concern assumption in the preparation of a company's financial statements and to conclude whether there is a material uncertainty about the entity's ability to continue as a going concern.

2.1.3 Altman Z Score Model

A numerical measurement used to predict the chances of a business going bankrupt in the next two years. The model was developed by American Finance Professor Edward Altman in 1968 as a measure of the financial stability of companies. The Z-score uses multiple inputs from Corporate Income Statements and Statements of Financial Position to measure the financial status of a company (Nwoye, Ekesiobi & Abiahu, 2017)). The inputs which Altman used were twenty-two different financial ratios divided into five categories: Liquidity, Profitability, Leverage, Solvency and Activity (Imade, 2021). The different ratios were combined into a single measure known as Z-Score.

Altman's Z-score formula is written as:

$$z = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$$

Where:

Zeta (z) is the Altman's Z-score

A is the Working Capital/Total Assets ratio

B is the Retained Earnings/Total Assets ratio

C is the Earnings Before Interest and Tax/Total Assets ratio

D is the Market Value of Equity/Total Assets ratio

E is the Total Sales/Total Assets ratio.

The Z-score model is based on five key financial ratios, (Ika & Nadya, 2017):

1. Working capital / total assets:

Working capital/total asset is used to measure the liquidity of the company's assets relative to total capitalization or to measure the company's ability to meet short-term obligations. Indicators that can be used to detect problems at the level of liquidity of the company are the internal indicators such as insufficiency of cash, debt swells trade, utilization of capital declines, additional debt is uncontrollable, and some other indicators.

2. Retained earnings / total assets:

Retained earnings/total asset is used to measure the cumulative profitability. This ratio measures the accumulated profits during the company's operations. The age of companies affects these

ratios because the longer the company operates allows it accelerates the accumulation of retained earnings. This resulted in the company being still relatively new in general and showing the result of a low ratio, except that a very large profit in its early years.

3. Earnings before interest and taxes / total assets:

Earnings before interest and taxes/total asset are used to measure the actual productivity of the assets of the company. The ratio measures the company's ability to generate income from the assets that were used. This ratio is the biggest contributor to the model. Some of the indicators that we can use in detecting a problem with the ability of the profitability of these companies are receivables increased, the loss continuously in several quarters, increased inventory, sales declined, and others.

4. Market capitalization/book value of debt:

Market capitalization/book value of debt is used to measure how much of the company's assets may be impaired before the debt amount is greater than its assets, and the company became insolvent. Capital in question is the combined market value of the ordinary capital and preference shares, while debt includes current liabilities and long-term debt.

5. Sales / total assets:

Sales/total asset is used to measure the ability of management in facing competitive conditions. The ratio measures the ability of management to use assets to generate sales.

2.1.4 Audit Firm Size

In October 2018, the Competitions and Markets Authority (CMA) announced it would launch a detailed study of the Big Four's dominance of the audit sector. Four names – or global brands – dominate the skyline: Deloitte Touche Tohmatsu (Deloitte) PricewaterhouseCoopers (PwC), Ernst & Young (EY) and Klynveld Peat Marwick Goerdele (KPMG). While these Big 4 audit companies are typically seen as single firms, they actually comprise a network of independently owned and managed companies that share a common brand, name and quality standards. The four networks are often grouped together for a number of reasons; they are each comparable in size relative to the rest of the market, both in terms of revenue and workforce; they are each considered equal in their ability to provide a wide scope of quality professional services to their clients; and, among those looking to start a career in professional services, particularly accounting, they are considered equally attractive networks to work in. The Big Four each offer audit, assurance, taxation, management consulting, actuarial, corporate finance, and legal services to their clients.

2.1.8 Joint Audit

Previous study (Imade, 2021) defined joint audit as an audit in which two or more independent auditors, from separate audit firms, are appointed to audit financial statements of an audit client, in such a way that involves: joint development of the audit plan; performing the audit work jointly; making periodic cross reviews and mutual quality controls; issuing and signing a single audit report; and bearing joint liability in case of audit failure.

2.1.9 Financially Distressed and Healthy Firm

The condition in which a company experiences financial difficulties and is threatened with bankruptcy is known as financial distress. Companies that experience bankruptcy will begin with financial distress conditions in the company. However, if the company is experiencing financial distress, it is not certain that it will end in bankruptcy (Andriyani *et al,* 2021). Financial distress is a condition in which a company experiences financial difficulties by experiencing a stage of decreasing the company's ability to pay debts to creditors when they fall due (Platt, 2002; Andriyani *et al.,* 2021). Financial distress shows that the company has no ability to cover current obligations, for example, unpaid debts. Janes (2005) finds that poor profitability and high financial leverage result in financial distress. A company is said to be financially healthy, if it encompasses the ability to generate revenue, have sufficient cash flow, financial competence and return more money to investors.

2.2 Theoretical Review

This study anchored on the audit quality theory propounded by Watkins, Hillison and Morecroft (2004), as it was found to be keenly related to the study.

2.2.1 Audit Quality Theory

Audit quality and perceptions of audit quality have been considered as two different concepts by Watkins *et al*. (2004). In order to keep the distinction between these two concepts Watkins *et al.* (2004) use factors like "monitoring strength" and "reputation" to refer to the actual and perceived audit quality. The monitoring strength helps in influencing and maintaining the quality of the information in the financial statements, whereas the reputation of auditors can influence the credibility perceived by the stakeholders regarding the auditors. The auditor's monitoring strength can be measured via the components of audit quality which are the auditors' degree of competence and independence. The same degree of competence and independence of auditors measured as components of audit quality from the perception of the market then would refer to auditor reputation. Auditor reputation is difficult to observe or measure due to the fact that they are based on the users' beliefs. The audit quality framework presented by Watkins *et al.* (2004), captures the

relationship between audit quality components, audit quality products, and the influences over the information in financial statements. The two products of audit quality which are influenced by the components of audit quality are information credibility and information quality. Variations in the auditor monitoring strength can be reflected in the financial reports in the form of trueness in the economic circumstances of the client firm. Thus, auditor monitoring strength in a way reduces the differences between the economic circumstances reported by the client and the true but unobservable economic circumstances of the client firm. The credibility of information or the reliability of information is impacted by the perceived reputation of the auditor. Auditor reputation is considered to be consistent over the period of audit engagement while audit monitoring strength may vary over the period of audit engagement. The relationship between audit quality and either demand drivers (client risk strategies and agency conflicts) or supply drivers (audit fees and auditor risk management strategies) has been presented in the framework of audit quality presented by Watkins *et al*. (2004). Watkins *et al.* (2004) have summarized the client risk strategies which is one of the demand drivers of audit quality, that high-quality information is signaled by the companies by demanding auditors with highly-acclaimed brand-name. But this may not be the case for risky clients, for whom both the demand and the ability to signal high-quality information are being mitigated by the pricing of the brand name audits.

2.3 Empirical Review

Amahalu, Okeke, and Obi (2017), ascertained the determinants of audit quality with a focus on healthcare firms listed on the floor of the Nigeria Stock Exchange from 2010-2016. This study made use of secondary data obtained from fact books, annual reports, and accounts of selected healthcare firms under study. The result of this study revealed that there is a positive and statistically significant relationship between audit independence, audit tenure, audit firm size and audit quality of healthcare firms listed on the floor of Nigerian Stock Exchange at 5% level of significance.

Andriyani and Dyatmiko (2021), aimed to examine the effect of audit quality, financial distress, and audit lag, going concern audit opinions on transportation sector companies listed on the Indonesia Stock Exchange (IDX) in 2016-2020. The type of data used was secondary data in the form of audited financial reports and independent auditor reports obtained from the IDX official website. The sample in this study amounted to 70 samples determined by purposive sampling method. The results showed that audit quality had no significant effect on going-concern audit opinion, financial distress had a significant effect on going concern audit opinion, audit lag had no significant effect on going-concern audit opinion. Based on the results of the study, financial

distress can be used as material for auditors' consideration in providing a going concern audit opinion.

Chang and Hwang (2020) investigated whether a firm's financial distress is predictable using artificial intelligence techniques and research methods. The authors analyzed whether audit quality is the key factor that affects the occurrence of a company's financial distress in China. Using the binary choice model and life test method, the evidence indicates that the audit quality of the firm is negatively correlated with the probability of the firm's financial distress. The authors concluded that firms with higher audit quality would be more likely to reduce the probability of financial distress.

Egolum and Ezeh, (2021) examined the effect of audit quality on accounting going concern. Specifically, this study explored two key measures of audit quality by making use of a sample of thirty-eight (38) listed manufacturing firms in Nigeria for the period ranging from 2013 to 2018. Audit quality proxies that were considered in this study include; audit fee and audit firm size which represented the independent variables while accounting going concern (dependent variable) is measured in the framework of the Altman Z-score index and firm leverage served as a control variable in the specified model. In this study, the hierarchical regression analysis technique was employed to evaluate the panel data set that was collated from annual financial reports of the sampled manufacturing listed firms. The finding indicated that audit firm size indeed does improve the going concern status of the firm during the period under investigation. This finding translated to support the view that non-audit services such as audits of employee benefit plans, as well as consultations concerning financial and tax planning provided by big four audit services, help to improve a firm's going concern status.

Imade (2021), examined audit quality and concept of going concern in quoted nonfinancial companies in Nigeria. We employed audit quality proxies which include Audit Firm Size, Audit Tenure, Audit Fee, Joint Audit, and Audit Delay also representing the independent variables and Altman Z scores index (dependent variable) as proxy for accounting going concern. This study employed secondary data obtained from related companies annual reports published by the Nigerian Stock Exchange. The population of this study includes all nonfinancial companies listed on the floor of the Nigerian Stock Exchange market during a 10 years period ie between 2011 and 2020. The sample after adopting Krejcie and Morgan sample size computation technique consist of 84 companies. The results indicate that audit firm size, audit tenure, and audit fee have statistically significant effect on going concern concept. However, joint audit and audit delay show

no statistically significant effect on going concern concept of listed non-financial firms in Nigeria during the period under review.

Kaoje and Mohammed (2022) examined the impact of audit quality on the financial performance of quoted Oil and Gas marketing companies in Nigeria. The population comprises of 11 oil and gas companies quoted on the Nigeria Exchange Group Plc. The paper adopted the longitudinal and ex-post facto research designs. Data were gathered from the published annual reports and accounts of the sampled oil and gas companies. The results revealed that audit firm type and auditors' tenure have no significant relationship with the financial performance of the quoted oil and gas marketing companies in Nigeria which is evidenced by a p-value of 0.995 and 0.730 respectively.

Putri, (2020) examined the factors affecting going concern audit opinions. This study determined the effect of audit quality, the size of the company, the audit opinion the previous year, the ownership of the company, the company's growth, debt default, opinion shopping, bankruptcy prediction, and the factor of the audit committee together against going concern audit opinion on the companies listed in the Indonesia Stock Exchange. In this study, researchers used purposive sampling and obtained a sample size of 141 sample companies listed on the Stock Exchange in the year 2012-2014. The analytical method used is logistic regression. The results of this study indicated the quality of the audit, the size of the company, and managerial ownership affect the going concern audit opinion while the audit opinion in previous years, institutional ownership, growth, debt default, opinion shopping, bankruptcy prediction, the activity of the audit committee, and membership of audit committees do not affect the going concern audit opinion.

Yunus, Nagian, and Wilsa (2022), studied the influence of audit quality, financial condition, and earnings management on the auditor's opinion on going concern with corporate mechanism as a moderating variable. This study analyzed data from the financial statements of 49 manufacturing companies listed on the Indonesian Stock Exchange in 2018-2020. The results of this study provided empirical evidence that giving a going concern audit opinion by the auditor is not based on the quality of the auditor because he acts by auditing standards.

Most of the existing empirical audit quality literature originates from other countries around the world, with vibrant capital markets (Yunus *et al*, 2022; Andriyani *et al,* 2021; Chang *et al*, 2020; Putri, 2020), very little research has been conducted in countries where capital markets are less developed. Thus, it is evident that there is a need for research on audit quality and accounting

going concern in Nigeria. To improve the statistical relevance of the result sample compared to the prior related studies in Nigeria, the researcher extended the period of the study to 2022.

3. MATERIAL AND METHOD

This study employed an *ex-post facto* research design, the population of the study consisted of all the fifty-nine (59) manufacturing companies listed on the Nigerian Exchange (NGX) Group, as of December 31, 2023. The study drew its sample size through a purposive non-probability sampling technique. To ensure uniformity of mean and common basis of comparison, the researcher selected twelve (12) financially distressed companies and twelve (12) financially healthy companies, using Edward Altman's guideline. The study relied on secondary data from the Nigerian Exchange (NGX) Group, fact books and annual reports. The fixed effect and random effect regression analysis techniques were used to test the hypotheses formulated, with the aid of STATA 14.0 and validated at 5% level of significance.

Based on the chosen approach of selection, if the Z value of the studied company is smaller than 1.81, then the company is at high risk of bankruptcy, when the Z value is between 1.81 and 2.99 it still has a risk of bankruptcy, when the Z value is above 2.99 the company is predicted to be in a safe condition. The Edward Altman guidelines distribution is shown in Table 1.

Table 1 Edward Altman Guidelines

SITUATION	Z-SCORE	ZONES	RESULT
1	Below 1.79	Bankruptcy zone	Failure is certain
2	1.8 to 2.9	Healthy zone	May or may not fail
3	Above 3	Too healthy	Will not fail

Source: Imade (2021)

From the table 1,

1. A firm with Z-Score below 1.8 is in Qualified Audit Opinion Zone.

2. If a firm has a Z-Score between 1.8, and 3, its audit opinion zone is uncertain to predict.

3. Z-Score of above 3 implies that the firm is in Unqualified Audit Zone.

Although there has been much criticism regarding the effectiveness of Z-score models, but Z-score model continues to be used in a variety of business situation from actual bankruptcy to financial distress conditions. It has been applied as management decision tool and as an analysis tool by auditors to assess clients' ability to continue as going concern (Imade, 2021).

The model for this study was adapted from the study of Imade, (2021) but modified to suit the hypotheses of this study which centred on the effect of audit quality on the accounting going concern of listed manufacturing companies in Nigeria. The functional form is stated as.

Going Concern = f (Audit Firm Size, Joint Audit, Control) ………… (1)

This can be re-written in explicit form as:

$$ZSCORE = \pi_0 + \pi_1 AFSIZE + \pi_2 JA + \pi_3 FLEV \dots\dots\dots\dots\dots\dots\dots\text{(2)}$$

Accounting Going Concern Econometric Model

Financially Distressed Manufacturing Companies

$$\text{fdz-score}_{it} = \pi_0 + \pi_1 AFSIZE_{it} + \pi_2 JA_{it} + \pi_3 FLEV_{it} + \sum\nolimits_t \dots\dots\dots\dots\dots\text{(3)}$$

Accounting Going Concern Econometric Model

Financially Healthy Manufacturing Companies

$$\text{fhz-score}_{it} = \pi_0 + \pi_1 AFSIZE_{it} + \pi_2 JA_{it} + \pi_3 FLEV_{it} + \sum\nolimits_t \dots\dots\dots\dots\dots\text{(4)}$$

Where;

fdz-score = Financially Distressed Altman Z-score

fhz-score = Financially Healthy Altman Z-score

AFSIZE= Audit firm size

JA= Joint Audit

Control Variables

FLEV = Financial Leverage

it = (i = no of cross section and t = time periods)

∑ = Model Error Term

3.1 Decision Rule

Accept Alternate hypothesis and reject Null hypothesis, if P-value <0.05

Accept Null hypothesis and reject Alternate hypothesis, if P-value >0.05

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

In this study, descriptive statistics, correlation analysis, tests for normality of data, and panel regression were conducted to identify the possible effect of audit quality on accounting going concern for listed manufacturing companies in Nigeria. Moreso, panel regression post estimation test such as test for multi-collinearity, and test for possible heteroscedasticity were conducted. The descriptive statistics in the tables 4a and 4b provide some insight into the nature of the selected listed manufacturing companies used in this study. The Tables 4a and 4b show the mean, maximum, minimum, and standard deviation for each of the variables of interest.

Table 4a Descriptive Analysis Result: Financially Distressed Manufacturing Companies

Variable	Mean	Std. Dev.	Min	Max
Zscore	.5278788	.9110702	-1.62	1.27
Afsize	.5	.5019048	0	1
Ja	.0454545	.2090924	0	1
flev	60.12462	22.3987	15.07	117.36

Source: Author's Computation, 2023

Table 4a described the basic statistics of the variables employed in this study for observations of listed financially distressed manufacturing firms (based on Altman Z Score Categorization) in Nigeria during the 2012 to 2022 period. The basic statistics of the variables that have been described include the mean values, the standard deviation values, the minimum and the maximum values. From table 4a, the average value computed for Z score observation is seen to be 0.53 which corresponds to a minimum value of -1.62 and a maximum value of 1.77 while the mean value for audit firm size (afsize) stood at 0.5 during the same period.

The statistics result indicates that while about 50% of the firms in the financially distressed category hired the services of at least one Big Four audit firm during the period under investigation, the financial health status did not improve beyond the distress zone at the point in time. This outcome can be said to be intriguing because it raises some level of concern over the capacity and abilities of the so-called Big Four audit firms. Joint audit practice is revealed to be patronized by about 5% of the sample observation which indicates that the quest for joint auditing is materially low for manufacturing firms experiencing financial distress situations.

Table 4b Descriptive Analysis Result: Financially Healthy Manufacturing Companies

Variable	Mean	Std. Dev.	Min	Max
Zscore	3.835714	.9824288	3.1	6.37
afsize	.6285714	.4902409	0	1
ja	.0857143	.2840286	0	1
flev	54.68029	13.58642	26.86	89.32

Source: Author's Computation, 2023

Table 4b described the basic statistics of the variables employed in this study concerning observations for listed financially healthy manufacturing firms (based on Altman Z Score Categorization) in Nigeria during the 2012 to 2022 period. Simply from table 4b, the average value computed for the Z score is seen to be 3.83 which corresponds to a minimum value of 3.1 and a

maximum value of 6.37 while the mean value for audit firm size (afsize) stood at 0.628 during the same period. The descriptive statistics result indicates that about 63% of the firms in the entire observation hired the services of at least one of the Big Four audit firms during the period under investigation. This is seen to be slightly higher (3%) than manufacturing firms that fall under the financially distressed zone. In this regard, one can conclude that there is not much difference between the demand for Big Four audit firms by financially distressed manufacturing firms and the demand for Big Four audit firms by financially healthy firms during the period under study.

Joint audit practice is revealed to be patronized by about 3% of the sample observation which indicates that the quest for joint auditing is materially lower for manufacturing firms experiencing good financial positions than for manufacturing firms experiencing distressed financial positions.

4.1.1 Test for Normality of Data

This study adopted the Shapiro-Wilk test for normality test procedure for n =10 to n =2000 which is in line with the position of Razali and Wah (2011). Consequently, the test for normality of data is conducted as shown in the tables 5a and 5b:

Table 5a Analysis for Normality of Data : Financially Distressed Manufacturing Companies
Shapiro-Wilk W test for normal data

Variable	W	V	Z	Prob>z
zscore	0.92382	7.947	4.668	0.00000
afsize	0.99941	0.062	-6.275	1.00000
ja	0.75350	25.716	7.312	0.00000
Flev	0.98852	1.197	0.406	0.34243

Source: Author's Computation, 2023

From the results presented in table 5a, it is seen that accounting going concern proxied as Zscore (Prob > z = 0.00000) for the financially distressed firms is significant at 1% level, hence, the variable is not normally distributed. Similarly, the independent variable, joint auditor (Prob > z = 0.00000) is not normally distributed since the probabilities of the z-statistics provided by the Shapiro wilk test for normality is significant at either 1% or 5% level. However, the independent variable: audit firm size (Prob > z = 0.00140) as well as the control variable of leverage (Prob > z = 0.34243) are normally distributed judging from the insignificant z value.

Table 5b Analysis for Normality of Data: Financially Healthy Manufacturing Companies

Shapiro-Wilk W test for normal data

Variable	W	V	Z	Prob>z
zscore	0.73923	9.308	4.657	0.00000
afsize	0.98327	0.597	-1.076	0.85901
ja	0.68773	11.146	5.033	0.00000
Flev	0.96774	1.151	0.294	0.38420

Source: Author's Computation, 2023

From the results presented in table 5b, it is seen that accounting going concern proxied as Zscore (Prob > z = 0.00000) joint audit (Prob > z = 0.00000), for financially healthy firms is significant at 1% level, hence, the variable is not normally distributed. However, the independent variable, audit firm size (Prob > z = 0.85901), is normally distributed since the probability of the z-statistics provided by the Shapiro wilk test for normality is insignificant. The outcomes are compelling as it can be observed that more of the independent and the control variables tend to be normally distributed in the financially healthy sample frame. Worthy of note is that the interpretations of these outcomes have been justified following the study of Bera and Jarque (1982).

4.1.2 Correlation Analysis

This study employed the Spearman Rank Correlation analysis technique to conduct the correlation analysis test for the variables of interest as shown in tables 6a and 6b.

Table 6a Correlation Analysis Result: Financially Distressed Manufacturing Companies

Variables	zscore	Afsize	Ja	flev
zscore	1.0000			
afsize	0.2038	1.00000		
ja	-0.2472	0.2182	1.0000	
flev	-0.6198	-0.1998	0.1852	1.0000

Source: Author's Computation, 2023

Specifically, the analysis from the Spearman Rank Correlation analysis showed that the variables of interest plus the control variable include joint auditors (-0.2472) and firm leverage (-0.6198) are negatively correlated with the dependent variable (accounting going concern). Notably, the auditors' firm size (0.2038), is seen to be positively correlated with the dependent variable. However, the associations/correlation are seen to be weak (less than 0.70) hence there is not much room to expect the presence of multicollinearity in the estimated model.

Table 6b Correlation Analysis Result: Financially Healthy ManufacturingCompanies

Variables	zscore	Afsize	Ja	Flev
zscore	1.0000			
afsize	0.2022	1.0000		
Ja	0.2465	0.1318	1.00000	
flev	0.0543	0.0176	0.1868	1.0000

Source: Author's Computation, 2023

Clearly, the analysis from the Spearman rank correlation analysis presented in table 6b showed some level of differences in the association among the variables of interest presented in table 6a. In table 6b, it is seen that not all the independent and control variables negatively associate with the dependent variable. Specifically, the variables of auditors' firm size (0.2022), and firm leverage (0.0543) are positively correlated with the dependent variable (accounting going concern). However, the associations are seen to be weak (less than 0.70) hence there is not much room to expect the presence of multicollinearity in the estimated model.

4.2 Regression Analyses

Specifically, to examine the effect of audit quality (independent variables) on accounting going concern (dependent variable), for financially distressed and financially healthy manufacturing firms in Nigeria, this study employed the panel regression analysis technique and proceeded to validate the estimates. The results obtained are presented in tables 7a and 7b

Table 7a Accounting Going Concern Result: Financially Distressed Sample

	ZSCORE Model (Fixed Effect)	ZSCORE Model (Random Effect)	ZSCORE Model (Mixed Effect)
AFSIZE	-0.096	0.063	0.703
	(0.493)	(0.651)	(0.000) ***
JA	0.031	-0.150	-0.069
	(0.903)	(0.562)	(0.760)
FLEV	-0.013	-0.015	-0.011
	(0.000) ***	(0.000) ***	(0.000) ***
CON	2.593	2.903	3.387
	(0.000) ***	(0.000) ***	(0.000) ***
F-/Wald	8.68	60.81	732.17
	(0.0000) ***	(0.0000) ***	(0.0000) ***

R^2	0.3135	0.3020
VIF	1.61	
Hausman Specification Test = 22.00 (0.1012)		
	Presence of Fixed Effect Error (YES)	Presence of Random Effect Error (YES)
Breusch and Pagan Lagrangian Multiplier Test for Random Effects Chibar^2(01) = 71.38 Prob > Chibar^2 = 0.0000 ***		
Joint Test for Normality on e:	Chi^2(2) = 81.86	Prob > Chi^2 = 0.0152 **
Joint Test for Normality on u:	Chi^2(2) = 53.31	Prob > Chi^2 = 0.0310 **

Note: {} are p-values; (2) **, ***, implies statistical significance at 5% and 1% levels respectively

Source: Author's Computation, 2023; Software: STATA 14.0

Table 7a presented the results obtained from the regression of listed financially distressed manufacturing companies. As observed from the table 7a, the VIF value of 1.61 indicates the absence of multicollinearity. Further, a cursory look at both the F-statistic and Wald-statistic values [8.68 (0.0000) and 60.81 (0.0000)] for fixed and random effect regression models respectively showed that both models are significant at 1%. The coefficient of determination (R-squared) with values of 0.3135 and 0.3020 (fixed and random effect models respectively) indicate that about 31.3% and 30.2% of the systematic changes in the variable of accounting going concern are jointly explained by the independent and control variables. The Hausman specification test [Chi Square value = 22.00, with Probability, = 0.1012] revealed an insignificant probability value indicating the adoption of the random effect model over the fixed effect model. In the selected random effect model, this study test for potential heteroscedasticity in the residua and the diagnostics revealed that there exist significant random errors. Therefore, panel mixed effect regression analysis technique becomes valid to control for the residua errors, make interpretation and policy interpretation for this study.

Table 7b Accounting Going Concern Result: Financially Healthy Sample

	ZSCORE Model (Fixed Effect)	ZSCORE Model (Random Effect)
AFSIZE	0.9535	0.838
	(0.055)**	(0.047)**
JA	-1.158	-0.961
	(0.016)**	(0.010)**
FLEV	-0.035	-0.010
	(0.146)	(0.490)
CON	2.6891	5.466
	(0.000) ***	(0.003) ***
F-STAT/WALD STAT	2.21 (0.0223)	12.68 (0.0485)***
R^2	0.44	0.40
VIF	1.20	
PRESENCE OF FR/RE ERRORS	YES (3.57, 0.0094)	
Hausman Specification Test = 3.78 (0.7060)		
	Presence of Fixed Effect Error (YES)	Presence of Random Effect Error (YES)
Breusch and Pagan Lagrangian Multiplier Test for Random Effects		
$Chibar^2(01)$ = 71.38		
$Prob > Chibar^2$ = 0.0000 ***		
Joint Test for Normality on e:	$Chi^2(2) = 0.54$ $Prob > Chi^2 = 0.7641$	
Joint Test for Normality on u:	$Chi^2(2) = 0.31$ $Prob > Chi^2 = 0.8225$	

Note: {} are p-values; (2) **, ***, implies statistical significance at 5% and 1% levels respectively

Source: Author's Computation, 2023; Software: STATA 14.0

Table 7b presented the results obtained from the regression for listed financially healthy manufacturing companies. As observed from table 7b, both F-statistic and Wald-statistic values [2.21 (0.0223) and 12.68 (0.0485)] for fixed and random effect regression models respectively showed that both models are significant. The coefficient of determination (R-squared) with values of 0.4387 and 0.3980 (fixed and random effect models respectively) indicate that about 44% and

40% of the systematic variation in accounting going concern are jointly explained by the independent and control variables. The Hausman specification test [Chi Square value = 3.78, with Probability, = 0.7060] revealed an insignificant probability value indicating the adoption of the random effect model over the fixed effect model. Again, in the selected random effect model, this study proceeded to test for potential heteroscedasticity in the residua and the diagnostics revealed no significant error in the residua hence random effect regression analysis technique becomes valid for interpretation and policy interpretation.

4.3 Tests of Hypotheses

4.3.1 Hypothesis One

H_0:   There is no significant difference between the effect of audit firm size on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

The mixed effect model employed to test the hypothesis for financially distressed firms presented in table 4.4a reveal the result of the variable of audit firm size (afsize) as follows: (Coef. = 0.703, z = 5.67 and P -value = 0.000), while the random effect model employed to test the hypothesis of the financially healthy firms in table 4.4b revealed the result of the variable of audit firm size (afsize) as follows: (Coef. = 0.838, z = 1.99 and P -value = 0.047).

4.3.1.1 Decision: The result show that the effect of audit firm size on accounting going concern is positive and significant during the period under review. It is vital to note that the sign (positive) remained consistent for the different samples (distress and healthy) This suggests that "ceteris paribus" (all things been equal) hiring the services of a Big Four audit companies significantly improved the going concern status of the audited firm be it in healthy or distress position. This study rejected the null hypothesis and accepted the alternative hypothesis that there was significant difference between the effect of audit firm size on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

4.3.2 Hypothesis Two

H_0:   There is no significant difference between the effect of joint audit on accounting going concern of financially distressed and healthy manufacturing companies in Nigeria.

The mixed effect model presented in table 4.4a for financially distressed firms reveals the result of the variable of joint audit (ja) as follows: (Coef. = -0.069, z = -0.31 and P -value = 0.760) while the random effect model employed to test the effect of joint audit on accounting going concern for financially healthy firms in table 4.4b revealed a result as follows: (Coef. = -0.961, z = -2.58 and P -value = 0.010).

4.3.2.1 Decision: Concerning the result, it is revealed that the effect of joint audit on accounting going concern is mixed: statistically insignificant for financially distressed manufacturing firms but statistically significant for financially healthy manufacturing firms during the period under review. This suggests that on average and under the ceteris paribus assumption, (all things been equal) hiring joint audit services will significantly plunge financially healthy firms into distress situations. This suggest that financially healthy firms that are engaged in hiring the services of joint auditors will have to contend with distress situations because it's going concern status will significantly deplete. This study rejected the stated null hypothesis, and accepted the alternative hypothesis that there was significant difference between the effect of joint audit on accounting going concern of financially distressed and healthy manufacturing firms in Nigeria.

CONCLUSION AND RECOMMENDATIONS

In order to keep the distinction between "monitoring strength" and "reputation" of auditors, Watkins et al, (2004), companies, especially those in the manufacturing sector in Nigeria, should strategically consider the choice of audit firm as an integral part of their financial strategy. Opting for a Big Four audit firm may not only enhance the accuracy and reliability of financial reporting but also contribute to improving the overall financial health and credibility of the organization. Therefore, management teams should carefully evaluate the potential benefits of engaging a Big Four audit firm when making decisions about their financial and auditing strategies. Firms and regulatory bodies should recognize the nuanced impact of joint audit practices on financially healthy firms invariably suggesting the need for regulatory guidance that allows flexibility in choosing audit models, enabling financially healthy firms to tailor their audit practices based on their specific needs and circumstances. From the findings obtained from the empirical analysis, this study concludes that the effect of audit quality on accounting going concern should be juxtaposed with the financial status (distressed/healthy) of the firm, to obtain a more robust and unique solutions to problems faced by listed firms in Nigeria.

Based on the outcomes obtained from the regression analysis,

i. On audit firm size, this study promotes the need for listed manufacturing firms in Nigeria to engage the services of Big Four audit firms based on the outcome that hiring the services of a Big Four audit firm significantly improves the financial health status of both financially distressed and financially healthy manufacturing firms in Nigeria. In addition, policymakers can play a crucial role in fostering an environment that promotes collaboration between large audit firms and smaller audit firms aiming to facilitate knowledge transfer, skill development, and overall capacity building within the auditing sector. By promoting collaboration for audit capacity building, an ecosystem that harnesses the strengths of both big four and smaller audit

firms is created, ultimately enhancing the financial health and stability of the manufacturing sector in Nigeria.

ii. Given the finding that joint audit practice significantly reduces the financial position of financially healthy manufacturing firms, policymakers should consider promoting regulatory flexibility in the application of joint audit practices. Instead of enforcing a one-size-fits-all approach, regulators can encourage financial flexibility for financially healthy firms to choose the audit model that best suits their specific needs and circumstances. Notably, this recommendation can be achieved by developing clear and flexible regulatory guidance that acknowledges the potential impact of joint audit practices on financially healthy firms. Provide guidelines that allow firms to choose between single and joint audit practices based on their individual characteristics and needs.

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APPENDIX

Table 2 Sample Size (Financially Healthy Manufacturing Companies)

S/NO	NAME OF COMPANY	LISTING YR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	CHAMPION BREWERIES	1983	0	0	0	0	0	0	0	6.37	0	0	3.11
2	CHEMICAL & ALLIED PAINT	1978	4.58	5.31	5.93	5.65	3.83	3.67	3.46	3.17	0	0	3.55
3	CUTIX	1987	0	3.18	0	0	0	3.17	3.18	3.44	0	0	3.11
4	FLOUR MILL OF NIGERIA	1979	0	0	0	0	0	0	0	0	0	0	3.11
5	GREIF NIGERIA	1986	0	0	0	0	0	0	0	0	6.12	0	5.21
6	LIVESTOCK FEEDS	1978	3.37	0	0	0	0	0	0	0	0	0	3.11
7	MCNICHOLIS CONSOLIDATION	2009	0	0	0	3.21	0	0	0	0	0	0	3.33
8	MEYER PLC	1979	0	0	0	0	0	0	0	0	3.12	0	3.66
9	NASCON ALLIED	1992	3.28	0	0	0	0	0	0	0	0	0	3.1
10	NESTLE NIGERIA	1979	0	0	0	0	0	3.34	3.21	0	0	0	3.36
11	NIGERIAN NORTHERN FLOUR	1978	4.42	4.02	4.46	0	0	0	0	0	0	0	0
12	VITAFOAM NIGERIA	1978	0	0	0	0	0	0	0	3.19	0	0	3.12

Source: Author's computation, 2023

Table 3 Sample Size (Financially Distressed Manufacturing Companies)

S/NO	NAME OF COMPANY	LISTING YR	2012	2013	2014	2015	2016	2017	2018
1	ALUMINIUM EXTRUSION IND.	1986	1.24	1.62	1.54	1.75	1.01	1.49	1.45
2	DANGOTE CEMENT	2010	1.47	1.63	1.24	1.35	0.9	1.25	1.49
3	FTN COCOA PROCESSOR	2008	-0.51	-0.39	-0.9	0.01	-0.68	-0.91	-0.4
4	HONEYWELL FLOUR MILL	2009	1.15	1	1.25	0.64	0.2	0.65	0.81
5	INTERNATIONAL BREWERIES	1995	0.16	1.41	1.51	1.18	1.05	0.98	0.25
6	JOHN HOLT	1974	0.18	0.09	0.07	0.07	0.34	0.28	0.53
7	LAFARGE CEMENT WAPCO NIG	1979	1.23	1.47	1.3	0.92	0.25	0.09	0.44
8	MORRISON INDUSTRIES	1978	0.91	0.77	-0.46	-0.38	-0.9	-1.56	-1.31
9	MULTIVERSE	2008	0.13	-0.35	-0.83	-0.66	-0.91	-0.75	-1.13
10	NEIMETH INT. PHARM	1979	1.54	1.64	1.51	0.6	1.47	0.21	1.77
11	NIGERIAN ENAMELWARE	1979	1.69	1.77	1.31	0.85	1.11	0.95	0.83
12	UAC OF NIGERIA	1974	1.1	1.28	1.25	0.98	1.01	1.03	0.71

Source: Author's computation, 2023

Table 3 Sample Size (Financially Distressed Manufacturing Companies) Continued

S/NO	NAME OF COMPANY	LISTING YR	2019	2020	2021	2022
1	ALUMINIUM EXTRUSION IND.	1986	1.41	1.46	1.28	1.33
2	DANGOTE CEMENT	2010	1.1	1.22	1.31	1.33
3	FTN COCOA PROCESSOR	2008	-0.67	-0.6	-0.18	-0.88
4	HONEYWELL FLOUR MILL	2009	0.54	0.56	0.8	0.98
5	INTERNATIONAL BREWERIES	1995	-0.34	-0.3	-0.12	-0.25
6	JOHN HOLT	1974	0.47	0.31	0.12	0.17
7	LAFARGE CEMENT WAPCO NIG	1979	0.7	0.79	1.16	1.49
8	MORRISON INDUSTRIES	1978	-1.18	-1.52	-1.55	-1.62
9	MULTIVERSE	2008	-0.85	-1.19	-0.68	-0.66
10	NEIMETH INT. PHARM	1979	1.71	1.24	1.35	1.36
11	NIGERIAN ENAMELWARE	1979	0.2	0.81	-0.67	-0.25
12	UAC OF NIGERIA	1974	1.28	1.49	1.42	1.47

Source: Author's computation, 2023

DIVIDEND POLICY AND CAPITAL INVESTMENT ON SHARE PRICE VOLATILITY IN NIGERIA

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ABSTRACT:

This study examined how dividend policy and its interaction with capital investment affects share price volatility in Nigeria banking industry from 2013-2022. The study used a sample of 13 commercial banks quoted on the Nigeria stock exchange Preliminary analyses were also conducted, such as descriptive statistics and correlation matrix. In analyzing the data, the study adopted panel multiple regression to identify the possible effects of dividend policy and capital investment on share price volatility. The study employed Pooled and panel data regression with least square dummy variable as time and organizational dummies were created to account for any effect which vary over time and across section. The result showed that dividend per share and dividend pay-out ratio has a significant positive effect on share price volatility while dividend yield shows a significant negative effect on share price volatility while earnings volatility is insignificant. However the interaction of dividend yield and capital investment (dy*capinv) indicates a 5% significant negative influence on share price volatility this implies that in every 5% reduction in dividend yield and capital investment there will be a 5% reduction in share price. We concluded that corporate managers of the banks quoted on the Nigerian stock exchange can use dividend policy as a tool to control/manage share price volatility. We therefore, recommends that banks should try and improve on their financial performance that will enable consistent increase in the dividend per share for positive impact on market value.

1. INTRODUCTION

As a result of the processes of globalization and financial liberalization in developing nations like Nigeria which attracted a large amount of capital investment from developed nations such as the United States and China, this led to the stock market boom with the banking sector maintaining an important proportion of the total market capitalization but the impact of the global financial crisis of 2008 on the Nigerian economy which brought about capital flight and the fall in prices of

most asset cost of corporate and bank borrowing rose substantially and financial market volatility rose to levels never seen before , the Nigeria stock market has continued to drop, this is because firm value volatility is a consequence of instability, unpredictability, and risks. It affects investors' interests and leads to the differences between buying and selling prices according to Guo (2002) it is a systematic risk faced by investors who possess ordinary stock investments, it is also seen as the measure used to define risk, and represents the rate of change in the price of a security over a given time. Therefore, the greater the volatility, the greater the chances of a gain or loss on investment in a short period of time. A volatile stock is a stock whose price would greatly change over time and future price will be difficult to determine with certainty (Guo, 2002).

Dividend policy therefore plays a very vital role to the growth and survival of every firm. Dividend decision is one of the most important decisions that managers of corporate bodies may take (Fawaz, 2014). It influences the primary aim of shareholders which is maximization of shareholders' wealth through dividend. Companies are therefore required to maintain an appropriate balance between pay-out ratio and retention ratio (Khan, Aamir, Qayyum, Nasir & Khan 2011). In as much as dividend policy is a very vital decision among managers of corporate bodies, the theory of corporate finance also stated that managers are also faced with two major decisions which include investment and financing decisions because both decisions also affect the market value of firm, According to Ye and Tiong (2000). Capital investment decision requires careful consideration, because they are exposed to high levels of financial, political, and market volatility. capital investments, especially in real business assets represent an important, complex and life-giving role of financial management and due to the fact that such decisions have long-term effects on the economic and financial position, financial performance, stability and business growth of corporation, especially in terms of scarce and limited financial resources it is necessary to find out how the market reacts to capital investment and dividend policy, does it increase or reduce share price? Therefore, this study attempts to answer three basic question (1) does dividend policy affect share price volatility? the basic objective of this paper is to examine whether capital investment plays any moderating role in relationship between dividend policy and share price volatility in the Nigerian banking industry.

Many studies have been done in Nigeria on dividend policy and share price volatility such as Okafor, Mgbame and Chijioke (2011) with focus on the Nigerian stock market Otitolaiye and Siyanbola (2020), Araoye (2019) in Nigeria using dividend pattern. But not much has been done to create an interaction between dividend policy and capital investment and their effect on share price. Therefore this study is aimed at filling the gap in financial institutions in Nigeria by

interacting capital investment and dividend policy and determining its effect on share price volatility

1.1 Objectives of the Study

The main objective of the study is to determine the effect of dividend policy and capital investment on share price volatility while our specific objective include:

1. to determine the effect of dividend yield on share price volatility.
2. to ascertain the effect of dividend payout ratio on share price volatility.
3. to examine the effect of dividend per share on share price volatility.
4. to evaluate the moderating effect of dividend yield and capital investment on share price volatility.

1.2 Research Hypotheses

H_{01} There is no significant effect of dividend yield on share price volatility

H_{02} There is no significant effect of dividend payout ratio on share price volatility

H_{03} There is no significant effect of dividend per share on share price volatility

H_{04} There is no significant effect of dividend yield and capital investment on share price volatility.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Share price volatility

Thi and Nam (2019) defined Stock price volatility as a change in stock prices over time. Antonie Kotze (2005) also defined volatility as a price series or an economic indicator that changes a lot and swings wildly he also stated that Volatility is the variation or dispersion or deviation of an asset's returns from their mean. While Ahmad, Alrjoub, and Alrabba. (2018) refers it as the degree of movement in the price of an equity, asset or index over a certain time-period. Some Authors such as Park, Jung and Chul (2017) see volatility as a systematic risks they therefore defined it as the standard deviation of daily market returns they also stated that the stock market tend to become more volatile as a result of an increase in systemic risk as well as an increase in idiosyncratic risk. In line with Aabo et al. (2017); Guo (2002) also defined Share price volatility as a systematic risk investors who possess ordinary shares face. Okafor et al. (2011) sees it as a method used to define risk, and represents the rate of change in the price of a security over a given period of time. These scholars also stated that, the greater the volatility, the greater the chances of a gain or loss in investment within a short period of time. Volatility is a measure related to the variance of a security

price. Therefore if a stock is tagged as being volatile, its price would greatly change over time, and will be more difficult to say with certainty what its future price will be. In this case, investors prefer a less risky stock because the lesser the amount of risk, the better the investment (Gordon, 1959). In other words the lesser the volatility of a given stock, the greater its desirability to investors.

2.1.2 Dividend Policy

Dividend policy have continue to remains one of the most controversial issues in corporate finance and financial analysts have continue to engage in modeling and examining corporate dividend policy as it affects performance and researchers over the years have defined dividend policy differently such as Nissim and Ziv (2001) defined dividend policy as the regulations and guidelines that accompany uses to decide on whether to make dividend payments to shareholders. According to them, dividend are commonly seen as the distribution of earnings in real assets among shareholders of the firm in proportion to their ownership. It is basically the benefit of shareholders as a return for the risk and investment and is determined by different factors in an organization.

Basically, these factors include financing limitations, investment chances, and choices, firm size, pressure from shareholders and regulatory regime. Nwude (2003) also defined it as the guiding principle for determining the portion of a company's profit after taxes to be paid out to shareholders as dividend at end of a particular accounting period. He further stated that aim of dividend policy is to maximize the wealth of shareholders which is dependent on capital gain and current dividend. Emekekwue (2005) also see it as the portion of a firm's profit after tax that is distributed to shareholders as return on investment. He also agreed with Nwude (2003) that the main purpose of dividend policy is to determine the portion of the company's earnings that would be paid out to shareholders as dividend or held back as retained earnings. Retained earnings which is an important sources of financing of firm's projects. While Samuel and Wilkes (2005) refers it as management's long term decision on how to deploy cash flows from business activities that is, how much to invest in the business and how much to would be paid to shareholders as returns. The determination of the amount of dividends to be paid to shareholders is an important decision that companies undertake since the main objective of the firm is to maximize the shareholders wealth as measured by the price of the company's common stock.

2.1.3 Capital Investment

According to Desai, Wright and Chung, (2012), capital investment involves strategic investments which have long-term commitments of corporate policy that enhances particular technologies, products, and markets, Similarly Omilabua, Alao, and Situ (2018) stated that they involve strategic investments that help to create flexibility of operations or have the potential of generating profitable opportunities, in the future. Omilabua et al. (2018) further stated that capital investment is a critical aspect of a firm's operations in order to ensure optimum profit to the company as it involves a planning process of investment in long term assets. Shah and Noreen (2016) defined asset growth as the rate of the change in total assets between the beginning of the year and the end of the year. Similarly, Siyanbola and Otitolaiye (2020) stated that asset growth shows how well the company has grown from year to year and that higher growth in assets indicates that the company is performing well and can expand which in turn will have an impact on the stock price volatility. While Hilton, Maher and Selto (2012), refers capital asset expenditure as the resources, other than human capital, which a firm acquires and utilizes for productive activities or profit-making purposes.

2.2 Theoretical Review

2.2.1 Dividend Relevance Theory

This study is anchored on the dividend relevance theory developed by Developed by Gordon (1963) and Lintner (1962), the dividend relevance theory argues that there is a direct relationship between the market value of a company and its dividend policy. The dividend relevance theory include bird in hand theory, the clientele theory, Agency theory and signaling theory. The bird in hand theory believes that under conditions of uncertainty and imperfect information investors are interested on how the earnings stream is split between dividends and retained earnings because dividend signals to shareholders how well a company is doing and that investors value current dividend over future dividend or capital gains that dividend today ia more valuable than uncertain future cash flow (Gitman & Zutter, 2012), while the Walter (1963) argued that dividend policy should be dependent on the investment opportunity available to the company or firm. He was of the opinion that so long as there are investments opportunities from which the firm earns its rate of return which is higher than the firms weighted average cost of capital the firm should pay dividend to its shareholders. But if there are no such opportunities, the firm should payout a part of its profits. This opinion tends to highlight the information content of dividends. That is, the payment or omission of dividend by a firm is a means of announcing to the public what the firm‟s future will look like. A firm that pays no dividend will be looked like as a weak firm with little or

no future prospect and vice-versa. Going further, Walter (1963) came up with model explaining how dividend policy affects the value of a share in the stock exchange.

2.3 Empirical Review

Fawaz (2014) studied the impact of dividend policy on Share Price Volatility in Jordan with a sample of 53 quoted companies using multiple regression from 2001-2013 the study found a significant negative relationship between share price volatility with dividend payout

Amaramiro, and Njoku (2019) examined the impact of Dividend Policy on Corporate Performance in Nigeria with a sample of 10 companies listed on the Nigeria stock exchange using multiple regression the researchers concluded that there is no significant relationship between dividend policy out and corporate performance

Osegbue Ifureze and Ifurueze (2014) examined the relationship between dividend payment and corporate performance of 18 publicly listed banks in Nigeria, using panel data regression technique from 1990-2010 the study concluded that, there is no significant relationship between dividend payment and corporate performance of Nigerian banks

Shah and Noreen (2016) also worked on stock price volatility and role of dividend policy in Pakistan using multiple regression analysis with a sample of 50 firms quoted on the Karachi Stock Exchange 2005-2012 the study concluded a significant negative relationship between dividend payout ratio and share price volatility

Ilaboya and Omoye (2012) investigate Earnings, dividend and share price volatility in Nigeria stock exchange.. By using ordinary least squares (OLS) regression method, the researchers found that, there is no significant connection between dividend payout ratio and stock price volatility.in Nigeria.

Kunle and Oloruntoba (2019) investigated dividend policy's impact on share price in Nigeria with focus on Zenith bank Plc, form 2007-2016. The results showed that dividend payout ratio, have an insignificant negative impact on Zenith bank's share price. This finding indicates that dividend payout ratio is a weak predictor of Zenith bank's share price.

Odum, Odum, Omeziri, and Egbunike (2019) examined the impact of dividend payout ratio on the firm's value. With sample of breweries and beverage companies listed on the Nigerian stock exchange using Panel Ordinary Least Square Regression Techniques for the periods 2007-2016. The results indicated a significant positive impact the value of the firm. Finally,

Nazir, Nawaz, Anwar, and Ahmed (2010) in the determinants of stock price volatility in Pakistan with a sample size of 73 firms from Karachi Stock Exchange (KSE) from 2003-2008 using ordinary least square regression. The result showed a significant negative effect of the dividend yield to stock price volatility during the period.

Idewele and Murad (2017) examined the relationship between Deposit Money banks' financial performance and dividend policy from 2009 to 2014 with a sample size of 15 deposit banks using the Pooled Least Squares regression technique. The study showed a negative and insignificant relationship between dividend yield and financial performance.

Araoye et,al (2019) examined the effect of dividend policy on stock price volatility in Nigeria with data from 188 active trading companies listed on the Nigerian stock exchange using panel data random effect regression the result shows a 1% significant positive effect of dividend per share on share price volatility they therefore concluded that every 1% growth in dividend per share will cause share price to increase by 0.213% ,

Egolum and Onyeogubalu (2021) investigated the impact of dividend per share on share prices of selected consumer goods firms listed in the Nigeria stock exchange from the period of 2009-2018 using linear regression the researchers found a positive effect of dividend per share on share price and concluded that dividend per share is accountable for about 21.7% changes in the share prices of consumer goods firms listed in the Nigeria Stock Exchange.

Adefila, Oladipo and Adeoti (2013 studied the effect of dividend policy on the market price of shares in Nigeria with a sample size of 15 quoted companies on the Nigeria stock exchange the study concluded that, there is no association between dividend paid to shareholders and market prices of shares.

Okafor et,al (2011) in dividend policy and share price volatility in Nigeria using asset growth as a control variable and multiple least square regression technique the results indicates a significant negative impact on share price volatility, in line with expectations that as firm exhaust their growth opportunities, they will distribute more earnings as dividends, leaving their shares less risky.

3. MATERIAL AND METHOD

The study is an ex post facto design we used secondary data by obtaining financial information covering all commercial banks in Nigeria from 2013-2022. The reason for the selection of the banking industry is because when compared with other quoted companies in Nigeria the baking industry have to an extent been consistent with payment of dividend and it is the financial hub of Nigeria. The study used panel data and covered the period of 10 years from 2013-2022. This period

is adopted to draw a reliable conclusion focusing only the period after the global financial crisis which led to a drastic in value of shares. It consist of 13 commercial banks quoted on the Nigeria stock exchange with at least a minimum of National Authorization which consist of bank that are allowed to operate nationwide. The nature of the study necessitated the use of secondary data and data were directly taken from NSE fact book, others from published financial statement of the banks and others from daily market report upload on banks website and Nigeria stock exchange

In specifying our panel regression model for the effect of dividend policy and capital investment on share price volatility, our models were computed based on models used by previous studies such as Hussainey Mgbeme and Aruoriwo (2011); Okafor et,al (2011) Shah and Noreen (2016); in this respect 4 models were specified the first model include 3 conventional dividend policy variables which include dividend payout ratio (DPR) dividend yield (DYD) dividend per share (DPS) in other to control for variables that potentially drive dividend policy earnings volatility (ErnVT) was included in the second model as a control variable while the third model include the moderating variable CapIN. Finally the fourth and fifth model are the moderating variables of dividend payout ratio, dividend yield and capital investment DivYD*CapIN which are included to address the research objective

$$SPV_{it} = \alpha_0 + \alpha_1 DPR_{it} + \alpha_2 DYD_{it} + \alpha_3 DPS_{it} + \alpha_4 EVT_{it} + \alpha_5 CAIV + \alpha_6 (DYD * CAIV)_{it} + d_t + u_{it}$$

Where

SPV=share price volatility= $\sqrt{\left(\dfrac{H-L}{\frac{H+L}{2}}\right)^2}$

DPR= dividend payout ratio $= \dfrac{Dps}{Eps}$

DYD= dividend yield $= \dfrac{DPS}{market\ price}$

DPS= dividend per share $\dfrac{PROPOSED\ DIVIDEND}{NO\ OF\ ORDINARY\ SHARES}$

EVT= earnings volatility= $\sqrt{\left(\dfrac{EBIT}{TA}\right)^2}$

CINV= capital investment= $\dfrac{\Delta total\ asset}{total\ asset\ at\ the\ beginning}$

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

In this study, we investigated the effect of dividend policy on share price volatility using capital investment as a moderating variable in Nigeria banking industry from 2013-2022 with a sample size of 13 banks making a total 130 observations. To ensure adequate observation for statistical testing, we adopted panel data two way error correction model in other to account for

organizational and time heterogeneity with assumption for disturbance µit and identify the possible effect on share price volatility. To this end we conducted descriptive statistics and correlation matrix. Pooled and panel data regression with least square dummy variable and the poolability test was used to choose between ordinary pooled regression and least square dummy variable regression.

variable regression.

Table 1 Summary statistics.

Variables	Mean	Min	Max	Std. Dev
spv	0.67	0	1.83	0.28
dps	26.05	0	1289.86	155
dpr	9.99	-2.62	.000038	5.80
dy	0.65	0	31.028	3.70
ev	4.31	0.000845	263.80	29.72
capinv	1.58	-.99	131.21	12.59

Table 1 shows the result of the descriptive statistics of the dependent and independent variables, the mean (average) for each of the variable, their maximum values, minimum values and standard deviation. With the emphasis on the indicators of interest. Price volatility of Nigerian banks stock during the 2013–2022 period is observed at an average of 0.65% with a standard deviation of 0.28%.

Table 2 Correlation Matrix

Variables	Spv	Dps	Dpr	Dy	Ev	capinv
spv	1.0000					
dps	-0.0648***	1.0000				
dpr	-0.0792***	0.9665	1.0000			
dy	-0.0617***	0.9974	0.9477	1.0000		
ev	-0.1200***	0.9201	0.9068	0.9068	1.0000	
capinv	0.1514***	-0.0327**	-0.0338**	-0.0329**	-0.0305**	1.0000

Notes: *, **, ***are statistical significance at the 1%, 5% and 10% levels respectively; t-statistics in () are based on White heteroscedasticity-consistent std. errors   Source: Authors' Computations

Table2 indicates the correlation matrix of this research which measures the relationship between the dependent and independent variables. The above table indicates a significantly negative association between the dependent and independent variables except for the moderating variable capital investment which shows a significant positive association.

4.3 Regression result

Table 3 Two way error correction model

	OLS			
	Spv	spv	spv	spv
	[1]	[2]	[3]	[4]
Constant	-.19051	-.52678	2.122841	15.58
	(-0.31)	(-0.50)	(1.09)	(1.35)
dps	-.067584	.3411985	.2875368	0.2521443
	(-1.37)	(1.69)	(1.50)	(1.41)***
dpr	.0331128	|.08894	.20600	0.239
	(-1.37)	(1.32)	(1.72)	(2.12)**
dy	.0028218	-.47247	-.56076	-0.5031089
	(0.06)	(-2.01)	(-2.06)	(-2.13)**
ev	-.0969041	-.06888	.101196	0.0967843
	(-1.04)	(-1.56)	(0.88)	(0.86)
capin	.0113469		-.00059	0.0651324
	(0.31)		(-1.01)	(1.26)
Dy*capinv	-11.20587			-11.90217
	(-2.34)			(2.15)**
Net Effect				-7.6713
Time Dummies	Yes	yes	yes	yes
No of Obs.	130	130	130	130
R-Squared	0.5358	0.0001		
F-Statistic				0.00(27.63)
Pool test				0.0000

Notes: *, **, ***are statistical significance at the 1%, 5% and 10% levels respectively; t-statistics in () are based on White heteroscedasticity-consistent std. errors

Source: Authors' Computations.

Table 3 above presents the result of the empirical findings of the two way panel data error correction model, column 1 reflects the result of the OLS pool regression which assumes that all the samples are the same therefore it denies the heterogeneous nation of the samples banks while column 2-5 shows the result of the least square dummy variable regression which accepts the heterogeneous nature or individuality of the sampled bank. Column 2 shows the result of only the effect of the major variables of dividend policy and its control variable while column 3 indicates

the result of the independent variables and the moderating variable column 4 finally column 4 reflected the result of the interaction between dividend yield (Net effect) for this reason our interpretation will be focused on column 4

4.3 Tests of Hypotheses

4.3.1 Hypothesis One

H_0:   There is no significant effect of dividend yield on share price volatility in Nigeria

Dividend yield show a 5% significant negative influence on share price volatility, this implies that for every 5% increase in share price will reduce by 0.503% and vice versa this result is similar to that of Nazir,et,al(2011) okafor et,al (2019) who concluded a significant negative effect of dividend yield on share price volatility.

4.3.2 Hypothesis Two

H_0:   There is no significant effect of dividend pay-out ratio on share price volatility in Nigeria

Based on the coefficient of 0.239 and a p.value of 5% dividend payout ratio indicates a 5% significant positive effect on share price volatility this implies that every 5% increase in dividend payout ratio increases the chances of share price fluctuation by 0.239%. This result is in line with the findings of Azhagaiah and Sabari (2008) who concluded that the market price of stock is determined by dividend and retained earnings. Therefore we reject our null hypothesis which states that there is no significant effect of dividend payout ratio on share price volatility.

4.3.3 Hypothesis Three

H_0:   There is no significant effect of dividend per share on share price volatility in Nigeria

Dividend per share on share price volatility shows a 10% significant positive effect. This implies that at every 10% increase in dividend per share of the sampled banks share price is likely to increase by 0.252%. this finding is in line with that of Araoye et,al (2019) who found a significant positive effect of dividend per share on share price volatility and concluded that every 1% increase in dividend per share will increase share price by 0.213% it is also consistent with that Egolum and Onyeogubalu (2021) who concluded a significant positive impact of dividend per share on share price and stated that dividend per share is accountable for 21.7% change in share price. Therefore we reject our null hypothesis which states that there is no significant impact of dividend per share on share price volatility.

4.3.4 Hypothesis Four

H₀: Capital investment does not moderates the effect of dividend policy on share price volatility,

Columns 4 of Table 3 reveals that the coefficients of the interaction term are negative and statistically significant at the 5% level. To this end, with the influence of capital investment, the net effect of dividend yield on share price volatility is -7.6713 ([-11.9021× 0.65] + [0.0651) Thus, it is plausible to argue that the negative interaction of capital investment and dividend yield leads to a -76% decrease in share price volatility, on average, ceteris paribus. In the computation, the mean value of dividend yield is 0.65, the unconditional effect of capital investment is 0.0651 while the conditional impact from the interaction between capital investment and dividend yield is -11.9021. In the light of the above, a negative net effect implies that the investigated hypothesis is rejected.

4.3.5 Control Variable

Earnings volatility also indicates an insignificant positive effect on share price volatility this finding is in line with the findings of Thin and Nam, (2019) who concluded an insignificant positive effect of earnings volatility on share price volatility similarly capital investment also indicate an insignificant positive effect on share price volatility.

CONCLUSION AND RECOMMENDATIONS

The purpose of this study is to investigate the effect of dividend policy and capital investment on share price volatility. Using quoted banks within the period of 2013-2022. In other to achieve this aim, we obtained data based on prior research on dividend policy, capital investment and share price volatility. These variables include dividend per share, dividend payout ratio and dividend yield earnings volatility was introduced as a control variable while capital investment was introduced as a moderating variable. Based on these variables our hypothesis were postulated.

The F-statistics (27.63) and its p-value (0.0) show that, the share price volatility least square dummy variable model is generally significant and well specified. The F-statistic also shows that, the overall share price volatility least square dummy variable regression model is significant at 1% levels.

The result from our study indicates a significant positive effect of dividend pay share and dividend payout ratio on share price volatility this finding is consistent with that of Idewele and Murad (2019) and Odum et.al (2019)who concluded a significant positive effect of dividend payout ratio on share price volatility . While we conclude a significant negative effect of dividend yield on share price volatility this implies that banks providing higher dividend yield tends to be less risky

in terms of price fluctuation finding is consistent with that of Thin and Nam (2019), Baskin (1989), Nazir,et,al(2011) okafor et,al (2019) Therefore, On the basis of results of this study it can be concluded capital investment complements dividend policy to reduce share price volatility in Nigeria. According to Thin and Nam, (2019) they stated that an adaptive dividend policy for corporate management and risk diversification strategies for investors as well as practical implications for policymakers can influence stock price volatility.

Based on the above conclusion this study has the following recommendations:

i. The study recommends that banks should try and improve on their financial performance that will enable consistent increase in the dividend per share for positive impact on market value.

ii. Banks can also change their dividend payout ratio which will affect dividend yield; as a result volatility of their bank's stock can be controlled as per their corporate plans. The positive relationship between dividend payout ratio and share price volatility,

iii. Hence bank managers requiring to reduce their share price volatility could simply increase dividends and capital investment. Such banks can carry out a cost-benefit analysis to determine if an alternative means of financing (for example, debt) may be more appropriate to finance their operations instead of retained earnings.

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EFFECT OF AUDITOR INDUSTRY EXPERTISE ON AUDITOR'S LIABILITY OF LISTED FINANCIAL FIRMS IN NIGERIA

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ABSTRACT:

This study examined the effect of audit industry expertise on auditor's liability of listed financial firms in Nigeria. It has become quite worrisome that investors are finding somewhat difficult to make reliable and informed financial decisions that will have positive impact on businesses due to the apparent lack of audit quality. Specifically, the study seeks to determine the effect of audit fees, audit firm size and auditor's tenure on audit litigation. The study relied on secondary data source, which extract from the 2012 – 2022 financial statements of 49 financial firms listed on the Nigerian Exchange Group as at 31st December, 2022, were further exposed to statistical analysis using the OLS multiple regression with the aid of E- View 10 output statistical software. Findings obtained showed that audit fees and larger audit firm size were significantly associated with a lower likelihood of audit-related litigation, while auditor's tenure was not found to have a significant effect on audit-related litigation. It was therefore recommended that audit firms should increase its audit fees, even stakeholders should consider the audit firm size when evaluating the financial statements of firms and better reputation which can help to reduce the likelihood of audit-related litigation. Moreso, auditing firms should focus on other factors such as the quality of the auditor's work and the reputation of the audit firm, when assessing audit quality. With these, auditing practices can become consistent and effective, regardless of expertise and/or the length of time an auditor has been with a particular firm.

1. INTRODUCTION

Fraudulent financial reporting practice is a phenomenon that cannot be overlooked in contemporary auditing practice due to several incidences of financial reporting scandals that rocked big public companies such as Enron, WorldCom and others. Many have adduced these happenings to auditors (Mgbame, Eragbhe & Osazuwa, 2012). Most companies in the face of scandals switched to high litigation firms (Big Four) because of its perceptions that high litigation firms produce quality reports especially it faces more loss of public image when compared with

firms having little litigation status. Frauds common to these firms among which are manipulation of sales management, negligent to record debt, postponement of written-off, and intentionally reported false financial statements et cetera. Following these phenomena, the accounting profession has always had trouble defending its audit quality against critics on why an audit conducted in accordance with professional standards might fail to detect a material misstatement of financial statements caused by fraud (Bragg, 2020). High-quality audit is very useful to produce reliable financial statements due to the high-quality auditing process could force the management whom intends to conduct fraud to implement the international financial reporting standard (IFRS) guidelines correctly. Therefore, reliable financial statements should show the highest quality of the auditors behind them, because the compliance with auditing standards is an auditor's professional responsibility in the audit of historical financial statements. In the detection of fraud, an audit industry expertise can perform an audit procedure for detecting fraud much better than non- audit industry expertise, and that no matter how good the availability of auditing procedures it solely depends with the level of auditor's industry expertise from the individual auditor during the audit process to reduce the level of fraudulent practices which in return will reduce auditor's liabilities in Nigeria companies (Balsam et.al 2003).

Audit firms seek to specialize in certain industries for several reasons including enhancing the quality of audits and achieving lower average costs through transfers of knowledge about audit risks and processes across similar clients (Reichelt & Wang 2020). Auditor's industry expertise are consistency and complexity significant determinants of auditor specialization and concentration. Auditors are more likely to specialize in industries with greater homogeneity among clients' operations and investment opportunity sets. Thus, the construct of homogeneity extends beyond regulatory reporting requirements to capture additional industry characteristics. We identify operational homogeneity as a key characteristic that allows auditors to benefit from knowledge spillovers by specializing in the industry. Cases of financial scandals by public companies in Nigeria and other countries which could not be detected by the auditors as described above, can eventually lead to the decline of public confidence, especially investors in the capital market, on audit quality generated by the auditor who provide an opinion about the fairness of the financial statements. This can be regarded as an audit failure which can endanger the auditor's profession (Nwoye, Ekesiobi, Obiorah, & Abiahu, 2016) if it is not be handled properly. Despite the significance of audit quality and auditors' responsibility, there are few studies focusing on the connection between audit industry expertise and auditors' liability in the context of companies listed on the Nigeria Exchange Group. The obvious surge of interest and attention in general financial reporting has been sparked by the recognized inability of audit processes to detect

financial misstatements. Investors are now unable to make informed financial decisions that will have a positive impact on businesses as a whole due to the apparent lack of audit quality to inform equity and other stakeholder regarding misrepresentations. This is true representation of the accuracy of reported earnings and the ability of auditing to effectively restrain managerial earnings manipulations. Questions are being raised as to whether these corporate failures, are not the result of weak audit procedures and what does firm stakeholders do to audit firm for auditors' negligence?

In light of the aforementioned challengess, the quality of auditing outcomes among auditors have been questionable by the various users of the financial statement. To this end, the research seeks to profound solution to the above mentioned problems in other to bridge the gaps between the auditors and the stakeholders. Therefore, this research examined the link between auditor industry expertise and auditor's liability in financial firms in Nigeria.

1.1 Objectives of the Study

The main objectives of this study is to examine the effect of auditor industry expertise on auditor's liability in financial firms in Nigeria, while the specifics objectives are to:

1. determine the effect of audit fee on audit litigation
2. establish the effect of audit firm size on audit litigation
3. ascertain the effect of auditor tenure on audit litigation to examine the effect of dividend per share on share price volatility.

1.2 Research Hypotheses

The following hypotheses were formulated for the study;

Ho_1: Audit fee has no significant effect on audit litigation

Ho_2: Audit firm size does not have any significant effect on audit litigation

Ho_3: Auditor tenure does not have any significant effect on audit litigation

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Auditor Industry Expertise

There is no single generally accepted definition for expertise. Porter (2015) viewed industry expertise as a differentiation strategy whose purpose is to provide the company with a sustainable competitive advantage over non-expert: In a differentiation strategy, a firm seeks to be unique along some dimensions that are widely valued by buyers. It seeks one or more attributes that many

buyers in the industry perceive as important, and uniquely position itself to meet those needs. It is rewarded for its uniqueness with a best price. According to Arens et al. (2019), Auditor expertise is auditor as having deep understanding (knowledge) and long experiences of the client's specific business and industry, having knowledge about the company's operations, and specific accounting and auditing guidance which are essential for doing a high- quality audit. The nature of the client's business and industry affects clients' business risk and the risk of material misstatements in the financial statements. Tuanakotta (2021), defined audit firm industry expertise as having long experiences and deep understandings of how general and specific accounting guidance applies to the specific client's industry and includes understanding of operational challenges and nuances of such industry. Tuanakotta (2021) further noted that there are many different expressions about the definition of audit firm industry expertise, but there is no difference in principle in these expressions, and the content of the expressions are consistent. Based on certified public auditor's industry expertise, audit firms that focus on a particular industry, and accumulate industry knowledge which are obviously different from other audit firms, will gradually become experts in that industry. Industry expertise is a kind of business strategy and market competition strategy adopted by audit firms based on their emphasis on specific industry knowledge and industry audit experience.

The expertise of the auditor plays an important role in improving audit quality so that the organization can avoid audit litigation cases. Demanding auditor specialization in an industry leads to a higher level of technical competence and technical information because non-specialized in the industry will cost the organization more harms item of litigation in future of the organization. It is mainly due to auditor's potential ability to detect financial statement errors (Arrunada, 2020). In this case, audit industry expertise knowledge enhances the likelihood that auditors discover errors, and thereby, affect the probability of reporting the discovered errors (Hammersley, 2016), by reporting the errors in the financial statement will lead to audit quality and reduce audit litigation cases. Requesting audit industry expertise can represent an incentive for audit firm to invest in expertise and to desire industry-based costumers. Besides, the industries which normally use the expertise contract, accounting related technologies, are more powerful to reach a higher level of audit quality by utilizing industry expert auditors than non-expert auditors. So, audit quality is positively related to specialization and audit industry expertise (Lowensohn, Johnson, Elder, & Davies, 2017).

In other words, additional investment on expertise can cause a positive effect on the audit fee premium. In this situation, audit industry expertise might reach more premiums compared to non-audit industry expertise (Wang & Iqbal, 2009). In addition, audit industry expertise, reinforced by

auditors during the engagements, will lead to higher audit quality. Such experiences can also enhance the audit reputation through market credibility. In summary, audit industry expertise advantages together with general audit knowledge can enhance the audit technical ability and audit reputation and so increase audit quality.

2.1.2 Auditor's Liability

In recent times, audit liability has become a matter of increasing concern, attracting the attention of practitioners and academics alike. In the face of large claims and the escalating cost of indemnity insurance cover in North America, Europe and Australia, there has been a great deal of lobbying by firms and institutes for changes in the law, focused on the principle of joint and several liability in particular. In addition, a refocus on issues of audit quality and a general perception that directors should take a more proactive role in corporate management has further elevated the issue. The impact of liability on audit quality has been investigated by various studies. In common, audit firms have liability for their actions considering their accountability to the regulators (Chung, Farrar, Puri, & Thorne, 2020). For some reasons, the auditors may be pressured by such conditions to be serious and accurate in their functions. Risk of litigation and litigation costs resulting from perceived audit failures (real or not real) are usually associated with auditor's liability. In this regard, litigation costs may arise from sources such as clients, investors and other financial statement users. Such costs may cause liability payments and loss of reputation.

The auditor's liability represents the legal liability that is assumed when the auditor is performing professional duties, the auditor is liable for client accounting misstatements in the financial statements because there is always the risk of fraud and material misstatement in financial statements. Companies Law No. 15 issued in 1960, Article No. 165, is the law concerning the auditing profession. It states that the auditor is responsible for the accuracy of the data in his report, as he represents all shareholders of the company (Fatwa & Legislation Dep, 2015). Article no. 148 in the same law states that the chairman and members of the board of directors are responsible towards the company, shareholders, and third parties for all acts of fraud, abuse of power, and every violation of the law or the company's system and error in the administration. On the other Exceptionally, the Companies Law; which explained the responsibility of the external auditor in just one article which is inaccurate and came in general. As can be seen that these laws did not give a clear and specific definition of third party who has the right to litigate the external auditor in the case of audit failure. This law did not include any articles regarding the damage potentially occurring for the investors from a wrongdoing of the auditor. This law did not decide any civil rights for buyer of securities against auditors; whom their negligence is proved during the auditing.

In other words, additional investment on expertise can cause a positive effect on the audit fee premium. In this situation, audit industry expertise might reach more premiums compared to non-audit industry expertise (Wang & Iqbal, 2009). In addition, audit industry expertise, reinforced by auditors during the engagements, will lead to higher audit quality. Such experiences can also enhance the audit reputation through market credibility. In summary, audit industry expertise advantages together with general audit knowledge can enhance the audit technical ability and audit reputation and so increase audit quality. However, both less and more liability may put audit firm partners at risk. Less liability may lead to auditor's negative mind about their independence credibility. Moreover, higher liability may lead to higher audit costs for partners. Therefore, partners shouldn't be involved in increasing the liability (Acemoglu & Gietzmann, 2017).

2.1.3 Audit Quality

The various changes in accounting, financial reporting and auditing were all designed to provide protection to investors. This is being achieved by imposing a duty of accountability upon the managers of a company (Sudsomboon & Vssahawanitchakit, 2019). More precisely, the role of auditing is to reduce information irregularity on accounting numbers, and to minimize the residual loss resulting from managers' opportunism in financial reporting. Effective and perceived qualities are necessary for auditing to produce beneficial effects as a monitoring device. The perceived audit quality by financial statements users is at least as important as the effective audit quality. It can be measure using the big four and non-big four audit firms. In the words of Dang (2004), audit quality describes how well an audit detects and report material misstatements of financial statements, curtail information asymmetry between management and stockholders and therefore helps protect the interests of stakeholders (Arunada, 2000).

2.1.4 Audit Fee and Audit litigation

Audit fee and audit Litigation there have been special emphasis on locality and auditor industry specialization. audit fee is the amount of cost incurred by external auditor services clients, so the amount of fee that represents income for the firm depends on how complex and broad the scope of the audit is and the reputation of the firm in the community, government and investors (DeAngelo, 1981). Audit services are one of the factors for choosing audit quality levels. It is argued that is the point at which might unambiguously argue that the concerns over audit quality have culminated in an observable and substantial event. Publicly available sources of information were used to identify the presence of litigation. Audit fee is mainly dependent on the audit firm's earned reputation through the provision of a high-quality audit. Prior studies revealed that perceived audit quality positively relates to audit fees; the higher the value placed on audit

examination carried out by auditors who appear to be highly competent and independent, the higher the prices paid by the auditees. However, it has been observed that in Nigeria and other developing economies auditors' reputation is affected by audit litigation, resulting in the low pricing of audit services to be provided by the reputable audit firm.

2.1.5 Audit Firm Size and Litigation

Firm size is one of the core problems of modern enterprise theory, enterprise size still plays an important role in the study of enterprise growth. According to Jiang (2003), firm size is clear as "employees per establishment, employees per company, sales per firm, and value added per firm. Chen, and Huang (2020) pointed out that firm size is the carrier of firm production and business activities. At present, there are two kinds of criteria for enterprise scale classification in the theoretical field: qualitative index and quantitative index, qualitative division is mainly defined from four aspects, the degree of enterprise autonomy, the degree of ownership concentration, the management mode and the status of the industry; quantitative division is mainly carried out from the aspects of the number of employees, assets and sales income (Shi, 2014). In case of the auditor's fine, auditors must plan the nature, timing, and extent of their effort to search for fraud in an auditee's financial statements. The auditors' decisions to search for fraud are affected by the average fine for failing to detect fraud, they also are affected by other properties of the fine, including the possibility of an extremely large legal liability (hereafter referred to as a skewed penalty system).

2.1.6 Tenure Audit and Litigation and Fine

According to Hartadi (2022), audit tenure is the length of time the auditor has consecutively performed audit work on a certain company. In the terminology of the Minister of Finance Regulation No.17/PMK.01/2008, audit tenure is identical to the period of providing services for public accountants. Performing an audit procedure as such will certainly give different results if the audit procedures are carried out in a state of no time budget. The problems of audit completion time related to the auditors' dysfunctional behaviour have serious implications for audit quality. In every audit activity, auditors will find an obstacle in determining the time to issue audit results that are accurate and in accordance with established rules. Audit tenure can be measured by the length of the time or numbers of years an audit spent in auditing a particular company's. While auditor's reputation is demonstrated by public confidence in the auditor through his performance. The auditors are responsible for keeping public trust and bound in honor of the auditors themselves and public accountant firms where they work by giving opinions that are appropriate to the company's state. The auditor's reputation, in this case, can be represented by several relevant

auditors hired by managers. The more frequent the auditor is hired, the higher the auditor's reputation is.

2.2 Theoretical Review

This section presents the theoretical framework that underpins the study under review such as theory of inspired confidence and lending credibility theory. Each of the theories are explained below.

2.2.1 Theory of Inspired Confidence

The theory of inspired confidence (Theory of rational expectations). The demand for audit services is the direct consequence of the participation of third parties (interested parties of a company) in the company. These parties demand accountability from the management, in return for their investments in the company. The demand is said to be increasing for audit services due to the influence and participation of external stakeholders in a company. These external stakeholders contribute to the company and in return they demand the audit of the management's financials and reports. The management can be influenced by biasness and their prepared accounts and reports which can be manipulated due to this, the audit of these is required because of differing interest of these external stakeholders and the management. A normative approach was adopted towards the supply side of the audit. The auditor therefore is to conduct the audit in such a way that any expectation of an external stakeholder is not damaged. Hence, with the advancement in audit procedures, public's reasonable expectations should be met by auditor by all means (Hayes et al., 1999). Accountability is realized through the issuance of periodic financial reports. However, since this information provided by the management may be biased, and outside parties have no direct means of monitoring, an audit is required to assure the reliability of this information.

2.2.2 Lending Credibility Theory

The lending credibility theory suggests that the primary function of the audit is to add credibility to the financial statements. In this view the service that the auditors are selling to the clients is credibility. Audited financial statements are seen to have elements that increase the financial statement users' confidence in the figures presented by the management (in the financial statement). The users are perceived to gain benefits from the increased credibility, these benefits are typically considered to be that the quality of investment decisions improve when they are based on reliable information, Hayes et al. (2015). The main result of this research is about credibility of the financial statement and the main objective of this theory is about adding credibility to the financial statement, we therefore anchored this research of leading credibility theory.

2.3 Empirical Review

Ahmad, and Abdulai, (2022) examined the nexus between audit industry specialization and audit quality in the listed nonfinancial firms in Nigeria Data were drawn from financial reports of 40 listed firms in Nigeria covering periods between 2005 and 2019 and the total observation stood at 517. Data analysis was carried out with the use of longitudinal econometric models. Evidence from the study support the rejection of the null hypothesis (t=-1.72, p<0.10 & t=-1.74, p<0.10) for the two models thereby supporting the proposition that audit quality improved significantly improved as a result of audit industry specialization. It specifically isolates the oil and gas as well as service industries for significant improvement in audit quality as a result of industry specialization of auditors while pointing to the possibility of improving the agricultural and consumer service industries due to their negative but insignificant coefficients.

Fanani, Budi and Utama, (2021) conducted a study on audit industry specialization focusing on audit quality and discovered that higher audit quality exists for specialist auditors above their non-specialist counterparts even though their study was restricted to the financial sector. The result presents consistent findings with previous studies who considered audit industry specialization unobservable and operationalized it with a binary digits of big 6 firm thereby defeating the intent of the study.

Davidson, and Dadalt. (2021) examined the relationship between audit fee and earnings management of pharmaceutical firms in Nigeria using total accrual management. Archival data were extracted from annual reports of selected quoted pharmaceutical firms in Nigerian Stock Exchange which was based on panel data ranging from 2006 – 2015. Ex post facto research design was used. Descriptive statistics correlation and panel multiple regression were used to analyse the data. The result of the regression showed that all the independent variables (firm size, firm complexity, and type of audit firms were generally and positively significant to the level of total accruals since the p-value is 0.4 i.e 4%. The study although, done in Nigeria did not capture so many variables in the audit quality literature as variables such industry specialization and tenure are good determinants of audit quality.

Ahmed (2019) investigated the professional auditors" perception of the impact of audit firm rotation on audit quality in Egypt. Primary data were collected via questionnaires and used. A sample size of 83 auditors was drawn using non-probabilistic sampling technique. T-test was used to analyse the data. Findings revealed that the auditors" perception indicate that there is a negative relation between long audit tenure and audit quality. There is a negative relation between client-

specific knowledge and mandatory auditor rotation. There is a positive relation between auditors" independence and mandatory auditor rotation. The study focused only on auditors perceptions. It ignores other interested parties such as clients, auditing profession associations and legislations which limit generalization. The use of questionnaires and non-probabilistic sampling technique by the researcher limit validity and reliability of the findings.

Che, Hope, and Langli, (2019) examined the availability of the four big-4 audit companies with higher quality audits than other companies, and the study found that the impact of the big-4 audit companies is present in the private sector, and the increased quality of auditing can be attributed to the strengthening of incentives. The U.S. audit firms are aware of the risks of auditing and the impact of those risks on the quality of the audit, and found that auditing companies that engage in risk-inherent behaviour say their audits are of lower quality, and audit company customers who take audit risks pay less for audits. Narayanaswamy and Raghunandan, (2019) identified the role of audit and audit independence in improving the quality of the audit, and the sample of the study was represented by a number of Indian companies for the period 2014-2017, and the study found that the low quality of audit was due to Auditors auditing her client for the long period of time and it affects auditor's independence.

Wong et al. (2018) aimed to determine whether the quality of auditing varies depending on the size of the Chinese audit firm under audit risk and found that large audit firms are associated with higher audit quality when compared to smaller audit firms. Niemi et al. (2018) investigated on the impact of audit risks on the auditing processes in Europe, and the study was conducted in Finland for the period 1996-2010. The study found that the four audit companies became more interested in audit risks, and it allocated the largest number of audit hours to companies' customers managed by their owners in 2010, compared to the year 1996, and fewer audit hours were allocated to low-risk customers in 2010 than in 1996.

Ugwunta, Ugwuanyi and Ngwa (2018), assessed the effect of audit quality on share prices in Nigerian oil and gas sector using regression and covariance analyses. Findings show that audit committee composition and auditor type has significant effect on market prices of quoted firms. The covariance analysis suggests that while auditor type, auditor independence, and composition of the audit committee have significant relationship with market price of shares, audit tenure has a negative relationship with the market price per shares. This study is timely but it focused only on aspect of performance hence the need for a study that will study the effect of audit quality on performance generally.

Egbunike and Abiahu, (2017) investigated audit firm report and financial performance of Money Deposit Banks in Nigeria with the aim of determining the effect of audit firm characteristics on financial performance of money deposit banks in Nigeria. The study adopted the ex post facto and correlational research design, with a study population that comprises all money deposit banks in existence as at 2015 financial year end covering a period of 5 years from 2010-2014. The study finds that audit quality has a significant effect on return on assets of Nigerian banks; Audit fee and audit report lag had no significant effect on return on assets, earnings per share and net profit margin of Nigerian banks. This study is also timely but if it had used a combination of both market and financial measure of performance, its result would have either been different or better and more reliable.

Audousset-Coulier, Jeny and Jiang (2016), carried a study on the effects of industry specialization on audit quality reveal a lack of consensus on the best measure of industry specialization. This is basically explained by the very complexity of the industry specialization concept, which the different proposed measures fail to adequately capture. Industry specialist auditors are generally defined according to industry market shares, and market shares are computed using different metrics such as audit fees, total assets and sales revenues. Empirical studies on auditor industry specialization, most of them conducted at the audit firm level, differ with regard the metric of industry specialization.

3. MATERIAL AND METHOD

The study adopted the *ex post facto* research design. The population of this study consist of all the 49 financial firms listed on the Nigeria Exchange Group as at 31st December 2022. secondary data was used for the study. And we also made used of other secondary sources of data in this study which were based on lengthily on documented sources such as financial reports and accounts of sample population. Secondary Data covering a period of ten (10) years (2012-2022). The reason for chosen 2012 as the preparatory year was because, the international financial reporting standard (IFRS) was approved and made it mandatory for all companies to implement the new standards in their financial reporting. The sample size is the same as the population, we made used of all the forty-nine (49) firms owned by banks and insurance on the Nigeria. Data collected were analyzed using multiple regressions of ordinary least square (OLS) method of estimation.

The study considered audit industry expertise as independent variable while auditor's liability as the dependent variable, AUDLITI as the dependent variable. Audit, audit fees and firm size as the Independent variables (AUDQUL, AUDFEE & AUDFMSIZ) while auditor tenure

(AUDTEN) was used as control variable. Each individual performance variables were regressed against the control variable, Onaolapo, Ajulo and Onifade (2017).

$$AUDLITI = \alpha + \beta 1 \ AUDFEE + \beta 2 \ AUDQUAL + \beta 3 AUDFMSIZ + \beta 4 \ AUDTEN + \mu \ \dots \text{(i)}$$

Where:

AUDLITI	=	Litigation
AUDQUAL	=	Audit Quality
AUDFEE	=	Audit fee
AUDFMSIZ	=	Firm Size
AUDTEN	=	Auditor's Tenure
α	=	Intercept coefficient
β	=	Coefficient for each of the independent Variables
μ	=	Error term.

Table 1: Descriptions of Variables

S/N	Variables	Definition	Type	Measurement
1	AUDLiti	Audit Litigation	Dependent	1 if there is a court case for the period and 0 if otherwise
2	AUDQUL	Audit Quality	Independent	1 if audit firm is BIG 4 and 0 if otherwise
3	AUDFEE	Audit Fee	Independent	Natural log of audit fee paid to the firm
4	AUDFMSIZ	Audit Firm Size	Independent	Natural log of total asset of the firm
5	AUD TEN	Auditor's Tenure	Control	1 if 3 years and above, 0 if less than 3 years

Source: Researcher, 2023.

3.1 Decision Rule

The study accepts the alternative hypothesis (H_1) when the p-value obtained is less than the 0.05, otherwise reject and accept the null hypothesis (H_0).

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 2. Descriptive Analysis

	AUDFEE	AUDFMSIZ	AUDLIT	AUDTEN
Mean	6.975294	7.281956	0.140000	0.753333
Median	7.356955	7.956307	0.000000	1.000000
Maximum	8.530955	10.13167	1.000000	1.000000
Minimum	0.000000	0.000000	0.000000	0.000000
Std. Dev.	1.563393	2.358706	0.348149	0.432515
Skewness	-3.552424	-2.249399	2.075006	-1.175367
Kurtosis	16.17955	7.529239	5.305648	2.381488
Jarque-Bera	1401.121	254.7074	140.8663	36.92818
Probability	0.000000	0.000000	0.000000	0.000000
Sum	1046.294	1092.293	21.00000	113.0000
Sum Sq. Dev.	364.1855	828.9604	18.06000	27.87333
Observations	150	150	150	150

Source: Eviews 10 Output

The mean value of Audit Fee is 6.975294, which represents the average value of the data set. The maximum value is 8.530955 and the minimum value is 0.000000, which indicate that the values in the data set range from 0 to 8.53. The standard deviation is 1.563393, which measures the amount of variation or dispersion of the data from the mean. The skewness is -3.552424, which suggests that the data distribution is heavily skewed to the left. The kurtosis is 16.17955, which indicates that the data distribution is very peaked and has a sharp peak. The Jarque-Bera is 1401.121 with a probability value of 0.000000, which indicates that the data does not follow a normal distribution.

The mean value of Audit firm size is 7.281956, the maximum value is 10.13167, and the minimum value is 0.000000, which indicates that the values in the data set range from 0 to 10. The standard deviation is 2.358706, which suggests that the data is more dispersed than the data in the AUDFEE variable. The skewness is -2.249399, which indicates that the data distribution is skewed to the left. The kurtosis is 7.529239, which indicates that the data distribution is less peaked than the data distribution in the AUDFEE variable. The Jarque-Bera is 254.7074 with the probability value is 0.000000 indicates that the data does not follow a normal distribution.

The mean value of Audit Litigation is 0.140000, the maximum value is 1.000000, and the minimum value is 0.000000. The standard deviation is 0.348149, which suggests that the data is relatively less dispersed than the data in the AUDFEE and AUDFMSIZ variables. The skewness is 2.075006, which indicates that the data distribution is heavily skewed to the right. The kurtosis is 5.305648, which indicates that the data distribution is very peaked and has a sharp peak. The Jarque-Bera is 140.8663 with the probability value is 0.000000 indicates that the data does not follow a normal distribution.

The mean value of Audit Tenure is 0.753333, the maximum value is 1.000000, and the minimum value is 0.000000. The standard deviation is 0.432515, which suggests that the data is relatively less dispersed than the data in the AUDFEE and AUDFMSIZ variables. The skewness is -1.175367, which indicates that the data distribution is slightly skewed to the left. The kurtosis is 2.381488, which indicates that the data distribution is less peaked than the data distributions in the AUDFEE and AUDLIT variables. The Jarque-Bera is 36.92818 the probability value is 0.000000 indicates that the data does not follow a normal distribution.

4.2 Hypotheses Testing

In line with the findings of the Hausman Specification Test, Random Effect regression approach was deployed in estimated the model. However, while the result of the Random Effect Estimation is presented in Table 3 below.

Table 3. Hypothesis Testing

Dependent Variable: AUDLIT

Method: Panel EGLS (Cross-section random effects)

Date: 04/12/23   Time: 01:09

Sample: 2012 2022

Periods included: 10

Cross-sections included: 125

Total panel (balanced) observations: 539

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.911071	0.156864	5.808047	0.0000
AUDFEE	-0.060406	0.025666	-2.353500	0.0199
AUDFMSIZ	-0.047430	0.016163	-2.934522	0.0039
AUDTEN	-0.005755	0.056168	-0.102459	0.9185

Effects Specification

	S.D.	Rho
Cross-section random	0.117174	0.1631
Idiosyncratic random	0.265454	0.8369

Weighted Statistics

R-squared	0.199925	Mean dependent var	0.095059
Adjusted R-squared	0.183485	S.D. dependent var	0.296366
S.E. of regression	0.267800	Sum squared resid	10.47068
F-statistic	12.16093	Durbin-Watson stat	1.889983
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.320204	Mean dependent var	0.140000
Sum squared resid	12.27712	Durbin-Watson stat	1.611893

Source: Eviews 10 Output

This is a panel data regression output that models the relationship between the dependent variable (AUDIT LITIGATION) and the independent variables (AUDIT FEE, AUDIT FIRM SIZE, and AUDIT TENURE). The method used to estimate the parameters is the Panel EGLS (Cross-section random effects) with the Swamy and Arora estimator of component variances. The sample used for the analysis covers the period from 2012 to 2022, with 10 periods and 125 cross-sections, resulting in a total of 539 balanced panel observations.

The weighted statistics section provides information on the goodness of fit of the model. The R-squared value of 0.199925 means that 19.99% of the variation in Audit Litigation is explained by the independent variables. The adjusted R-squared value adjusts the R-squared for the number of independent variables included in the model and gives a better indication of the goodness of fit. The F-statistic = 12.16093 which has a corresponding Prob(F-statistic) = 0.00000 suggests that the independent variables in the model are collectively significant in explaining the variation in Audit Litigation. The Durbin-Watson statistic tests for the presence of autocorrelation in the residuals and values between 1 and 2 suggest that there is no significant autocorrelation.

4.2.1 Hypothesis One

Ho$_1$: Audit fee has no significant effect on audit litigation

Table 3 above shows that t-statistics recorded -2.353500 while the p-value peaked at 0.0199 which is less than 0.05. This result suggests that higher audit fees are associated with a lower likelihood of audit-related litigation in listed financial firms in Nigeria. This may be because firms that charge higher fees are typically more experienced and have a better reputation, which can help to reduce the likelihood of audit-related litigation. Additionally, higher fees may reflect a higher level of effort and care taken by the audit firm during the audit process, which can reduce the likelihood of errors and subsequent litigation. Since the p-value is less than 0.05, we accept the alternate hypothesis, and this implies that Audit fee has a strong significant but negeative effect on audit litigation (t-statistics -2.353500, p-value 0.0199)

4.2.2 Hypothesis Two

Ho$_2$: Audit firm size does not have any significant effect on audit litigation

Table 3 above shows that t-statistics recorded -2.934522 while the p-value peaked at 0.0039 which is less than 0.05. This result suggests that larger audit firms are associated with a lower likelihood of audit-related litigation in listed financial firms in Nigeria. This may be because larger audit firms typically have more resources and experience, which can help to reduce the likelihood of audit-related litigation. Additionally, larger audit firms may have a better reputation and more established systems and processes, which can help to reduce the likelihood of errors during the audit process. Since the p-value is less than 0.05, we accept the alternate hypothesis, and this implies that Audit firm size has a strong significant but negeative effect on audit litigation (t-statistics --2.934522, p-value 0.0039)

4.2.3 Hypothesis Three

Ho$_3$: Auditor tenure does not have any significant effect on audit litigation

Table 3 above shows that t-statistics recorded -0.102459 while the p-value peaked at 0.9185 which is greater than 0.05. This result suggests that the length of time that an auditor has been with a particular firm may not necessarily be a factor in reducing the likelihood of audit-related litigation in listed financial firms in Nigeria. It's possible that other factors, such as the quality of the auditor's work, the reputation of the audit firm, or the complexity of the audit, are more important in determining the likelihood of audit-related litigation. Since the p-value is greater than 0.05, we accept the null hypothesis, and this implies that Auditor tenure not only maintained a weak and negative status but does not also have any significant effect on audit litigation (t-statistics -0.102459, p-value 0.9185)

CONCLUSION AND RECOMMENDATIONS

The research findings on the effect of audit industry expertise on auditor's liability of listed financial firms in Nigeria provide insights into the factors that may impact the likelihood of audit-related litigation. The results show that higher audit fees and larger audit firm size are associated with a lower likelihood of audit-related litigation, while auditor's tenure was not found to have a significant effect. The finding that higher audit fees and larger audit firm size are positively associated with lower audit-related litigation highlights the importance of these factors in reducing the risk of auditing failures. Higher audit fees may indicate a higher level of effort and care taken by the audit firm during the audit process, which can reduce the likelihood of errors and subsequent litigation.

Based on these findings, it was recommended that:

1. audit firms should increase its audit fees to reflect the level of effort and care taken during the audit process. This may help to ensure that the auditing process is thorough and reduces the likelihood of errors and subsequent litigation.

2. Stakeholders should consider the audit firm size when evaluating the financial statements of firms because larger audit firms may have more resources, experience, and a better reputation, which can help to reduce the likelihood of audit-related litigation.

3. Auditing firms should focus on other factors, such as the quality of the auditor's work and the reputation of the audit firm, when assessing audit quality. This may help to ensure that auditing practices are consistent and effective, regardless of the length of time an auditor has been with a particular firm.

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AUDIT COMMITTEE AND EARNINGS MANAGEMENT OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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ABSTRACT:

The study examined the effect of audit committee on earnings management of quoted industrial goods firms in Nigeria from 2012-2022 using a sample of eleven (11) industrial goods firms. Ex-Post Facto research design was employed while secondary data were collected and subjected to Panel Least Square Regression Analysis and Pearson Correlation Analysis in order to achieve the study objectives. Audit committee, which is the independent variable, was measured using audit committee size and audit financial expertise; whereas, earnings management which is the dependent variable was measured using discretionary accruals. Results of this study revealed that audit committee size and audit committee independence have a significant positive effect on discretionary accruals at 5% level of significance. This study recommended among others that there is the need for regulators like Securities and Exchange Commission (SEC) to increase the minimum number of members with financial expertise in the audit committees, since audit financial expertise plays significant role in checkmating the financial reports provided by managers and in reducing the occurrence of earnings management..

1. INTRODUCTION

The transparency and reliability of financial information through reporting and disclosure practices is of paramount importance in corporate governance, as it allows stakeholders to make informed decisions to protect their interests (Securities and Exchange Commission, 2002; Nwoye, Adeniyi, & Abiahu, 2020). Since the corporate collapses of Enron in 2001 and WorldCom in 2002, there has been much criticism of and questions asked about the effectiveness of audit committees in overseeing the corporate reporting process and in monitoring the independence of external auditors. Meanwhile, earnings management has become a specific area of concern in quality financial reporting practices. Earnings management is defined as the use of management's discretion over operating decisions and accounting choices to decrease, stabilize or increase

reported earnings for various purposes, such as beating financial analysts' forecasts, increasing managers' compensation and avoiding takeover attempts. Earnings management hides the true corporate performance from stakeholders and destroys organizational value; hence, it is an agency cost within the company (Rami, Usman & Ezeani, 2021). Earnings management has been described as the deliberate misrepresentation of the financial condition of an enterprise accomplished through intentional misstatement or omission of amounts or disclosure in the financial statement to deceive financial statement users. As a result of the fore goings, there are various provisions of codes and statutes that could be used to save and sanitize the financial system and improve financial reporting practices all over the world. In response to that, the regulatory authorities in Nigeria have responded by compelling companies to comply with stringent corporate governance codes. ThankGod and Onukogu (2018) reported that Nigeria has multiplicity of code of corporate governance with distinctive dissimilarities namely; Security and Exchange Commission (SEC) code of corporate governance 2003 to guide the operation of public companies listed on the Nigerian Stock Exchange, which was reviewed in 2011, Central Bank of Nigeria (CBN) code of 2006 and National Insurance Commission (NAICOM) code of 2009. Owing to the above, every public company in Nigeria is required under section 247 and 248 of the CAMA to have directors.

Real activity manipulation which is a deviation from firm normal operational practice motivated by manager's desire to achieve certain financial reporting objective which is achieved through sales manipulation by offering more lenient and favorable term than usual, reduction in discretionary expenditure to increase income and over production to report lower cost of goods actually sold, and they all have cash flow consequences to the firm. The role of audit committee in ensuring the quality of corporate financial reporting has received great attention in recent years by accounting and finance researchers. Financial statements are expected to provide users with factual not fictional, true and fair but not misleading information that will portray actual position and performance of the business. But where firm happens to manipulate its earnings through operational decision, information provided by their financial reports is no longer reliable and many stakeholders will be making decisions based on erroneous financial reports with manipulated earnings. This study examines whether Audit committee attributes (such as size of audit committee size and audit committee financial expertise) are associated with the propensity to engaging in earnings management of industrial goods firms in Nigeria. Although there are some studies on earnings management by Nigerian companies such as Haddad, El-Ammari and Bouri (2021); Namakavarani, Daryaei, Askarany and Askary (2021) with different findings, none of these studies examined the practice of earnings management in industrial goods firms to our best knowledge, therefore, creating a gap in knowledge. Furthermore, previous studies failed to

determine the nature and direction of relationship between audit committee and earnings management.

1.1 Objectives of the Study

The main objectives of this study is investigate the effect of audit committee size and financial expertise on earnings management of listed industrial goods firms in Nigeria. The specific objectives are:

1. to determine the effect of audit committee size on discretionary accruals of listed industrial goods firms in Nigeria.
2. to ascertain the effect of audit committee financial expertise on discretionary accruals of listed industrial goods firms in Nigeria.

1.2 Research Hypotheses

The following hypotheses were thus envisaged;

H_{o1}:   Audit committee size has no significant effect on discretionary accruals of listed industrial goods firms in Nigeria.

H_{o2}:   Audit committee financial expertise has no significant effect on discretionary accruals of listed industrial goods firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Audit Committee Size

Audit committee (AC) is a committee to be established by all listed companies in the Nigerian stock exchange, which is charged with the responsibility of overseeing the integrity of financial statements produced by the companies, as well as its compliance with legal requirement (SEC-CCG, 2003 in SEC 2011). An audit committee is a sub-committee of the board that specialises in, and is responsible for, ensuring the accuracy and reliability of the financial statements provided by management. Indeed, much of the blame and criticism for accounting irregularities is aimed at audit committees for not fulfilling their financial reporting oversight duties due to independence issues (Pergola, 2015). Bala (2014) defines audit committee as that which is composed of non-executive directors in the establishment". Arens, Elder and Besaly (2018) define audit committee as a group of persons selected from members of the board of directors who are responsible for retraining independence of auditors.

In order to perform their role effectively, audit committees should have adequate resources and authority to discharge their increasing responsibilities (FRC, 2008; Mangena & Pike, 2015).

Bédard, Chtourou and Courteau (2014) argue that the larger the audit committee, the more likely it is to uncover and resolve potential problems in the financial reporting process, because it is likely to provide the necessary strength and diversity of views and expertise to ensure effective monitoring. This suggests that audit committee size is an integral factor for firms in delivering meaningful corporate reporting (Mohammad, 2018). However, it can also be argued that as the number of audit committee members increases, each may be comforted by the presence of others and free riders emerge (Demaki, 2017). In addition, larger audit committees are also likely to suffer from process losses and diffusion of responsibility (Karamanou & Vafeas, 2015). The Smith Report (2003) recommends a minimum of three non-executive directors. According to SEC Code of Corporate Governance 2011, the audit committee should consist of not less than three directors of which independent directors should have the majority, and the committee is chaired by independent non-executive director.

2.1.2 Audit Committee Financial Expertise

Accounting or financial expertise are attributes/qualifications or experience acquired by a person before becoming a board member of a company (Marziel, Ali & Homayoon, 2017). Most of the global financial regulations mandate that at least one member of the audit committee should be a financial expert. And also, the provision of Companies and Allied Matters Act (CAMA) Section 359 (3) and (4) required that at least one board member of the audit committee should be financially literate. Apart from regulatory requirements, the existing literature also confirms that; for instance, Bouaziz, Fakhfakh and Jarboui (2020) documented that audit committees also face incentives to effectively monitor managers in form of legal liability in reputational work. Regulators from various countries realise the importance of financial expertise for improving the audit committee's effectiveness. They believe that the relevant experience or technical knowledge is crucial for effective accounting oversight (Olowokudejo & Oladimeji, 2019). For example, the Sarbanes-Oxley Act (2002) mandates that at least one member of the audit committee must be a financial expert. In the UK, the Smith report (2003) echoes the views of the Sarbanes-Oxley Act and specifies that at least one audit committee member must have significant, recent and relevant financial expertise.

2.1.3 Earnings Management

Moundigbaye, Rea and Reed (2018) opined that earnings management occurs when management has the opportunity to make accounting decisions that change reported income and exploit those opportunities. Additionally, Hassan and Bello (2013) indicated that earnings management occurs when managers use judgment in financial reporting and in structuring transaction to alter financial

report either to mislead some stakeholders about the underlying economic performance of the company or influence contractual outcomes that depend on reported accounting numbers. Amahalu, Abiahu, Obi & Nweze (2018) defined earnings management as a gray area where the accounting is being perverted; where managers are cutting corners; and, where earnings reports reflect the desires of management rather than the underlying financial performance of the company. As such earnings management, creative accounting, financial engineering or aggressive accounting as they are being called are considered to be a deliberate attempts make by the management to arrive at a desired level of earnings, through whatever means, is an unethical practice (Akhor & Oseghale, 2017).

2.1.4 Discretionary Accrual

Abdullah, Ismail and Smith (2018) tested several models in order to partition total accruals into non-discretionary and discretional components. Therefore, the study concludes that the modified Jones model is the most effective in measuring discretionary accruals that mostly reflect earnings management. According to Ali and Fattahi (2020), the original Jones Model explains the influence of economic environment change on non-discretionary accruals. It does not take into account that different industries have different influencing factors on non-discretionary accruals of the listed companies, and if most of non-discretionary accruals changes are caused by enterprise specific environment factors, then the industry model, which ignores differences in enterprises within the same industry, cannot separate non-discretionary accruals and discretionary accruals accurately.

2.2 Theoretical Review
2.2.1 Agency Theory

This study adopts agency theory to explain the relationship between audit committee and earnings management of quoted industrial goods firms in Nigeria. Agency theory originated from the work of Berle and Means (1932). These scholars explored the concept of agency and the applications toward the development of large corporations. The researchers found out how the interest of the directors and managers differ from the owners of the firm, thereby using the concepts of agency-principal to explain the genesis of those conflicts. Jensen and Meckling (1976), further on the work of Berle and Means (1932), to develop agency theory as a formal concept. This means that there will always be partial goal conflict among parties, because efficiency is inseparable from effectiveness, and thus information will always be somewhat asymmetric between principal and agent. Agency theory is therefore concerned with contractual relationship between two or more persons called the agent(s) to perform some services on behalf of the principal. Both the agents and the principal are presumed to have entered into mutual agreement or contract motivated solely

by self-interest. The principal delegates decision making responsibility to agents (Timea, 2019). It is a concept that explains why behavior or decisions vary when exhibited by members of a group. Specifically it describes the relationship between one party, called the principal that delegates work to another, called the agent. It explains their differences in behavior or decisions by noting the two parties often have different goals and, independent of their respective goals, different attitudes toward risk. Invariably, the agents' decision choices are assumed to have effect on both parties. These relationships, according to Achraf, El-Ammari and Bouri (2021), are perceived in economic and business life and also generate more problems of contracting between entities in the economy. This means that there is a contractual relationship between shareholders and directors and audit committee and shareholders or between audit committee and external auditors.

2.3 Empirical Review

Moradi, Salehi, Bighi, and Najari (2012) sought to find out the effects of characteristics including combined chairman-CEO roles, non-executive directors, board size, and change in the members of board director, type of their agency and presence of woman members in the board director on earnings management in listed companies on Tehran Stock Exchange during 2006-2009. In this research to determine discretionary accruals as earnings management indicator the Modified Jones Model was applied. Correlation and Multiple regression results showed that when operating cash flows in reducing the presence of non-executives and changes in the members of board director (or their agencies) account for effective factor in reducing management level. Also, it seem that conditions which govern in Iran have caused as increase firm size the management will have greater incentives to increase earnings for providing better figure of its performance to shareholders and authorities despite western results of researches. Although in situations which auditor organizations have been responsible to audit financial statements of corporation the firm size have not a significant relationship with earnings management level.

Baccouche, Hadriche and Omri (2013) examined the relationship between Audit Committee Multiple-Directorships and earnings management. Precisely, the study empirically investigated the effect of the multiple directorships held by audit committee directors on the level of earnings management of listed French companies. Investigation was achieved on a sample of 88 non financial French listed firms that belong to the SBF 120 index, for the financial year 2008. The results suggested that the accumulation of several outside directorships by audit committee members may lead to a higher degree of earnings management, as measured by the magnitude of discretionary accruals. Therefore, the findings showed that audit committee can't provide effective monitoring of earnings management when its members held many additional outside directorships.

El-Haddad, Ez-Zarzari, and Mohammed (2017) emphasizing the effect of the presence of audit committees on earnings management within the Moroccan context, and most specifically in the companies listed in the Casablanca stock exchange. The study adopted previous research embedded in the Dechow, Sloan and Sweeny (1995) model of earnings management that requires a maximum of 6 companies by sector, a condition that limited our sample to 27 companies dispatched only on 4 industry sectors. Given that the companies manipulate the accruals to show the increasing results or to maintain the stock price, the role of the audit committee is to ensure that this manipulation is to be reduced in order to provide investors with accurate information. In the Moroccan context, this reduction started appearing in 2014. The years 2011, 2012 and 2013 were marked by a preparation of implementation tools of these committees mainly the integration of independent administrators within the administrative boards.

Agwor, and Onukogu (2018) investigated the impact of audit committee expertise and earnings management practices of quoted food & beverages manufacturing firms in Nigeria. Secondary data were collected from the annual reports of 15 sampled firms using convenience sampling methodology which was mostly dictated by data availability. The study period covered 2006 to 2016. Earnings management was measured by discretionary accruals, using modified Jones (1991) model. Time series data was used to estimate discretionary accrual for each respective sampled firm as at 2016 financial year-end. Ordinary Least Square based regression was then applied on the cross-sectional estimates of the discretionary accruals, taking cross-section of audit committee quality dimensions (i.e. committee expertise, committee size and meeting frequency) as independent variables. Firm size was used as the contextual variable, which was measured by natural logarithm of tangible non-current assets value. It was found out that committee size was redundant due to constancy of data points, meeting frequency failed the test of statistical significance at 5% level, while the relationship between committee expertise and earnings management was not only significant at 5% level but negative.

3. MATERIAL AND METHOD

The study adopted ex-post facto research design to investigate the effect of audit committee on earnings management of listed industrial goods firms in Nigeria. The design is appropriate for this study because secondary data on audit committee and earnings management of listed industrial goods firms in Nigeria are already in the public domain through the annual reports and accounts. The population of the study consists of fifteen (15) Industrial Goods companies listed on Nigeria Exchange Group as at 31st December, 2022. The companies include;- African Paints (Nigeria) Plc, Ashaka Cement Plc, Austin Laz & Company Plc, Avon Crowncaps & Containers, Berger Paints

Plc, Beta Glass Co. Plc, CAP Plc, Cement Co. of North Nig. Plc, Cutix Plc, Dangote Cement Plc, First Aluminum Nigeria Plc, Lafarge Nigeria Plc, Meyer Plc, Paints and Coatings Manufacturers Plc, Portland Paints & Products Nigeria Plc. This study covered a ten (11) year period from 2012-2022. The reason for the period is because of the currency and availability of data for the period. Purposive sampling technique was adopted to select the companies with up to date and complete annual reports and accounts for the studied period (2012-2022). The sample size of this study consists of eleven (11) industrial goods firms that were continuously listed and actively trading on the Nigerian Stock Exchange (NSE) during the period 1st January 2012 to 31 December 2022 and whose financial statements are available and have been consistently submitted to Nigeria Stock Exchange (NSE) for the period under study. The selected firms are: Ashaka Cement Plc, Avon Crowncaps & Containers, Berger Paints Plc, Beta Glass Co. Plc, CAP Plc, Cutix Plc, Dangote Cement Plc, First Aluminum Nigeria Plc, Lafarge Nigeria Plc, Meyer Plc, Portland Paints & Products Nigeria Plc. The data used in this study were collected from secondary sources. These data were obtained from annual reports and account, fact books, Nigeria stock exchange publications for the sampled firms.

This study applied the quantitative approaches and ratio analysis to ascertain the effect of audit committee on earnings management of listed industrial goods firms in Nigeria during the period 2012-2022 and it includes the ratio analysis of the study variables using the panel data obtained from Nigeria Exchange Group (NGX) on the sampled industrial goods companies. Inferential statistics was employed in this study with the aid of E-Views using coefficient of correlation, which is a good measure of relationship between two variables that tell us about the strength of relationship and the direction of the relationship as well. Panel least square regression analysis was used for the study. Regression analysis predicts the value of a variable based on the value of the other variable and explains the effect of changes in the values of the variables.

This study adapted and modified the model of Yang and Krishnan (2015):

$$EM = \beta_0 + \beta_1 ADCMIND + \beta_2 ADCMSIZE + \beta_3 ADCMMEET + \beta_4 AUDFSIZE + \epsilon$$

Where:

EM = Earnings management

ADCMIND = Audit committee independence;

ADCMSIZE = Audit committee size

ADCMMEET = Audit committee meetings

AUDFSIZE = Audit firm size

The Modified Model used for the study is shown below as thus:

$$DAC_{it} = \beta_0 + \beta_1 ACS_{it} + \beta_2 FSZ_{it} + \mu_{it} \qquad - \qquad - \qquad - \qquad - \qquad \text{eqn 1}$$

$$DAC_{it} = \beta_0 + \beta_1 ACFE_{it} + \beta_2 FSZ_{it} + \mu_{it} \qquad \text{eqn 2}$$

Where:

β_0 = Constant (intercept)

$\beta_1 - \beta_2$ = Coefficients of the independent variable

μ_{it} = Error term of firm í in period t

DAC_{it} = Discretionary Accruals of firm í in period t

FSZ_{it} = Firm Size of firm í in period t

ACS_{it} = Audit Committee Size of firm í in period t

$ACFE_{it}$ = Audit Committee Financial Expertise of firm í in period t

4. RESULT AND DISCUSSIONS

4.1 Pearson Correlation Matrix

Table 1: Pearson Correlation Matrix

	DAC	ACS	ACFE	FSZ
DAC	1.000			
ACS	0.226	1.000		
ACM	-0.113	-0.129		
ACI	0.610	0.706		
ACFE	0.260	0.626	1.000	
FSZ	0.072	0.429	-0.103	1.000

Source: E-Views 9.0, Pearson correlation output, 2023

The result of the Pearson correlation matrix indicated a positive relationship between ACS (0.226), ACFE (0.260), FSZ (0.072) and DAC.

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho: Audit committee size has no significant effect on discretionary accruals of listed industrial goods firms in Nigeria.

Table 2 Panel Least Square Regression analysis testing the effect of ACS on DAC

 Dependent Variable: DAC

 Method: Panel Least Squares

 Date: 08/05/23   Time: 09:54

 Sample: 2012 2022

 Periods included: 11

 Cross-sections included: 11

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.384521	0.131280	2.929017	0.0042
ACS	0.018555	0.064846	2.826140	0.0047
FSZ	-0.021072	0.011961	-1.761763	0.0810
R-squared	0.430008	Mean dependent var		0.147273
Adjusted R-squared	0.311878	S.D. dependent var		0.156410
S.E. of regression	0.155478	Akaike info criterion		-0.857728
Sum squared resid	2.586562	Schwarz criterion		-0.784079
Log likelihood	50.17505	Hannan-Quinn criter.		-0.827856
F-statistic	11.65116	Durbin-Watson stat		1.371980
Prob(F-statistic)	0.000224			

Source: E-Views 9.0 Regression Output, 2023

Table 2 shows that there is a significant positive relationship between audit committee size and earnings management of listed industrial goods firms in Nigeria. This can be observed from the beta coefficient (β_1) of 0.018555 with p value of 0.0047 which is significant at 5%. This indicates that the size of audit committee members has a positive effect on earnings management of quoted industrial goods firms in Nigeria. Overall, the combined and the overall effect of the regressors- audit committee size and firm size on earnings management of quoted industrial goods firms in Nigeria, is shown on the model summary of the regression results. The Prob (F-statistic) of 11.65116 which is significant at 5% (0.000224) reveals that the model is well fitted, while the coefficient of determination R^2 of 0.311878, explains the individual variation of the dependent variable (discretionary accruals) as a result of the changes in the independent variables (audit committee size and firm size). It can be said that audit committee size and firm size have combined predictive power of 31.19% in affecting earnings management of quoted industrial goods firms in Nigeria, while the remaining 68.81% is accounted for by other factors which are not captured in the model.

4.2.1.1 Decision

Since the P-value of the test = 0.000224 is less than 0.05 (5%)., this study upholds that audit committee size has a significant and positive effect on discretionary accruals of listed industrial goods firms in Nigeria at 5% level of significance.

4.2.2 Hypothesis Two

Ho$_2$:   Audit committee financial expertise has no significant effect on discretionary accruals of listed industrial goods firms in Nigeria.

Table 3 Panel Least Square Regression analysis testing the effect of ACFE on DAC

Dependent Variable: DAC

Method: Panel Least Squares

Date: 08/05/23   Time: 10:01

Sample: 2012 2022

Periods included: 11

Cross-sections included: 11

Total panel (balanced) observations: 110

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.401931	0.133434	3.012205	0.0032
ACFE	0.472584	0.675617	4.699485	0.0000
FSZ	-0.021568	0.011888	-1.814368	0.0724

R-squared	0.463685	Mean dependent var	0.147273
Adjusted R-squared	0.425623	S.D. dependent var	0.156410
S.E. of regression	0.155183	Akaike info criterion	-0.861526
Sum squared resid	2.576758	Schwarz criterion	-0.787876
Log likelihood	50.38391	Hannan-Quinn criter.	-0.831653
F-statistic	11.86959	Durbin-Watson stat	1.389371
Prob(F-statistic)	0.000113		

Source: E-Views 9.0 Regression Output, 2023

Table 3 shows that there is a significant positive relationship between audit committee financial expertise and earnings management of quoted industrial goods firms in Nigeria. This can be observed from the beta coefficient (β$_1$) of 0.472584 with P-value of 0.0000 which is significant at 5%. This implies that the size of audit committee financial expertise has a positive effect on earnings management of quoted industrial goods firms in Nigeria. Overall, the combined and the overall effect of the regressors- audit committee financial expertise and firm size on earnings management of quoted industrial goods firms in Nigeria, is shown on the model summary of the regression results. The Prob(F-statistic) of 11.86959 which is significant at 5% (0.000113) reveals that the model is well fitted, while the coefficient of determination R^2 of 0.425623, explains the

individual variation of the dependent variable (discretionary accruals) as a result of the changes in the independent variables (audit committee financial expertise and firm size). It can be said that audit committee financial expertise and firm size have combined predictive power of 42.56% in affecting earnings management of quoted industrial goods firms in Nigeria, while the remaining 57.44% is accounted for by other factors which are not captured in the model.

4.2.2.1 Decision

Since the P-value of the test = 0.000113 is less than 0.05 (5%), this study upholds that audit committee financial expertise has a significant positive effect on discretionary accruals of quoted industrial goods firms in Nigeria at 5% level of significance.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of audit committee on earnings management of listed industrial goods firms in Nigeria. It obtained data from annual reports and account and publications from Nigeria stock exchange for the industrial goods firms that operated during 2012-2022. In addition, the effects of specific audit committee variables, such as audit committee size and audit committee financial expertise on discretionary accruals were assessed. The study concluded that audit committee size and audit committee financial expertise have a significant positive effect on discretionary accruals at 5% respectively. Based on this, the researcher recommend the following for future studies:

1. Industrial goods firms in Nigeria should ensure strict compliance with the provisions of Companies and Allied Matters act (CAMA) of having six members of equal representation three shareholders and three directors.

2. There is the need for regulators like SEC to increase the minimum number of members with financial expertise in the audit committees, since audit committee financial expertise plays significant role in checkmating the financial reports provided by managers and in reducing the likelihood of earnings management.

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EFFECT OF FAIR VALUE ACCOUNTING ON FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT:

This study ascertained the effect of fair value accounting on the financial performance of deposit money banks in Nigeria for the period 2012-2022. Using Ex-Post Facto research design, the data were generated from annual accounts of the selected sampled banks. Regression analysis was employed to test the hypotheses. Based on the outcome from the analysis, the study found that fair value accounting has significantly effects return on equity of deposit money banks in Nigeria at 5% level of significance, the study also revealed that fair value accounting has no significant effects profitability of deposit money banks in Nigeria at 5% level of significance. Based on the findings and conclusion of this study, it is therefore recommended among others that managers of listed deposit money banks in Nigeria should engage in activities that upsurge their revenue as this increases the value of shares.

1. INTRODUCTION

The practice of companies for closing its books of account while preparing and presenting its annual income statement and balance sheet has been accomplished using accounting periodicity for several years (Ibidunnia & Okere, 2019). Over the years, organizations have come to learn and accept the concept of Historical Cost Accounting, which is a traditional system based on the double entry principle that reports transaction cost at the original price. While this method of measuring assets and liabilities in the financial statement has several benefits such as objectivity, reliability and ability to provide conclusive evidence, it has however been criticized on the basis that it fails to account for changes in price level of company's assets over a period of time. Therefore, assets are sometimes presented at a price lower than the exercise price, which weakens the reliability and relevance of the accounting information. It was also found not good

to use in an inflationary market, it also provides information that is only reliable but not important for decision making and provides a means to smooth profits and hide the trades of managers extra money, e.g. (Betakova et al., 2014). Due to these shortcomings of historical cost accounting, accounting standard makers saw a paradigm shift from cost accounting to fair value accounting in 1980. This change was further reinforced by several financial scandals that shook some companies such as Xerox in 2000, Enron in 2001, Worldcom in 2002 and Pamalat in 2003 and in Nigeria Oceanic Bank, Intercontinental Bank, Afribank and Cadbury among others (Okere et al., 2017).

This transition to fair value accounting was expected to result in an improvement over the original cost accounting and likely corrected the deficiencies noted in the original cost accounting. According to IFRS 13, fair value is defined as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date". Fair value is expected to provide financial reporting information that is very useful for decision making and the meaning of accounting information (Procházka, 2011). It is also expected to eliminate the opportunity for profit trading and securitization, leading to an improvement in the quality of financial reporting. Of all the benefits of applying fair value accounting, one perceived benefit is its potential to reduce the ease of manipulation of accounting numbers (CFA, 2007).

Financial reporting is the process by which outside investors interact with a company's operations. It conveys important information needed by shareholders, external auditors, creditors and other stakeholders such as government (Alkali, Bagudo & Aliyu, 2023). These investors have many but different interests in financial statements and focus on issues that serve or protect their interests. In fact, the importance of accounting information to many investors cannot be overstated. Anaya and Emmanuel (2015) preach that financial statements are heavily relied on by the community for decision making, therefore financial statements must be meaningful and reliable and free from both intended and unintended biases. There has been a wide debate between fair value and cost accounting, as it has been argued that cost is more reliable and less important, while fair value is more significant and less reliable. Unfortunately, relevance and reliability of accounting data are two key characteristics of accounting data, as Ojeka et al. (2016), Schipper (1991) et cetera. Major opponents of fair value accounting have argued overtime that market-based values are largely free of manipulation and as such can be said to be reliable, and because fair value uses market values and can therefore be considered reliable. This means that fair value can help eliminate all such opportunities available to management to

manipulate earnings, while the cost model allows companies to prepare and present financial statements in a way that makes earnings easy to manage (Shaffer, 2011).

Though the prior findings were uncertain, most of the related studies used different proxies for financial performance like earnings per share, return on equity, share price, and none used return on assets, in addition, only Alkali, Bagudo and Aliyu (2023) used proxy fair value through other comprehensive income, this observed dearth research on return on assets and fair value through other comprehensive income has been considered as another motivation to execute this study in in banking sector of Nigeria.

1.1 Objectives of the Study

Because of this inconsistency and mixed evidence in literature and limited proxy on the subject matter, this study broadly seeks to examine the effect of fair value accounting on the financial performance of deposit money banks in Nigeria. Specifically, it seeks to:

1. to ascertain the extent to which fair value accounting affects return on equity of deposit money banks in Nigeria.

2. to ascertain the effect of fair value accounting on profitability of deposit money banks in Nigeria.

1.2 Research Hypotheses

The following hypotheses were thus envisaged;

Ho_1: Fair value accounting has not significantly effects return on equity of deposit money banks in Nigeria.

Ho_2: Fair value accounting has no significant effect on profitability of deposit money banks in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Fair Value Accounting and Reporting

The primary characteristics of accounting information are relevance and reliability, two criteria that increase the usefulness of a financial report. Fair value calculation (FVA), therefore the determination of fair value, has set a greater task in financial statements, because this information is considered more important for investors and creditors than historical cost information (Ibidunnia & Okere, 2019). In recent years, international standard setters and regulators, such as the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB), have begun to favor fair value accounting over cost

accounting in financial reporting. The main reason for this change in methodology is to improve the relevance of the information contained in the financial statements. The general principle behind the change is that up-to-date information improves investors' #039; and regulators and#039; the ability to make informed decisions (Kaur, 2013). Fair value is defined as the price that would be received to sell the asset or paid to transfer the liability in an orderly transaction between market participants on the valuation date (for instance, the exit price). International Accounting Standards Board (IASB) (2011). Definitions of fair value emphasize fair value as a market-based valuation rather than an entity-specific valuation (Akwu, 2014). When determining fair value, the (economic) entity uses assumptions that market participants would use to determine the price of the asset or liability under current market conditions, including assumptions about risk. As a result, the intention of the economic entity to hold the asset or pay the liability is not important when determining the fair value (International Accounting Standards Council, 2012). The fair value calculation in its ideal state fulfills the purpose of shareholder reporting by reporting assets and liabilities in the financial statements at fair value (to shareholders) rather than at original cost. The traditional calculation method, historical cost accounting, has the quality of rigidity: in other words, easy verification and low susceptibility to assumptions and estimates. It also ensures compliance with the principle of objectivity by providing verifiable data on past performance. However, it does not meet the information needs of investors (ie shareholders and debt holders) who seek relevant information to help predict the future performance of companies in a dynamic business environment.

Gautam and Arjun (2015) posit that the historical cost accounting method is considered to be more conservative and reliable, however, fair value accounting information is becoming more relevant as a result of the following features:

a. Investors' rising concerns with current value as against cost,

b. Fair value effects are not entity specific

c. Historical prices do not consider the time value of money which becomes irrelevant in assessing an entity's current financial position.

d. Fair value accounting reports assets and liabilities in the way that an economist would look at them.

e. Fair value considers the market risk and updates the prices of financial instruments.

f. IFRS 13-Fair Value Measurement (IASB, 2011) is the extent standard on fair value measurement.

The standard sets out the definitions, measurement criteria and disclosure requirements for organizations applying fair value methods. In applying fair value accounting in financial reporting, IFRS 13 requires an entity to determine:

a. The particular asset or liability being measured

b. For a non-financial asset, the highest and best use of the asset and whether the asset is used in combination with other assets or on a stand-alone basis c) The market in which an orderly transaction would take place for the asset or liability; and

c. The appropriate valuation technique to use when measuring fair value.

The valuation technique used should maximize the use of relevant observable inputs and minimize unobservable inputs. Those inputs should also be consistent with the inputs that a market participant would use when pricing the asset or liability (Institute of Chartered Accountants of Nigeria. Financial Accounting Study Pack, Berkshire, United Kingdom: Emile Woolf International, 2014).

Nissim and Penman (2008) wrote that accounting, like any product, should be in demand. The only difference is that in products you have customers and in accounting you have users. Different users may require different accounting statements and confusion arises when issues are discussed. For example, a shareholder may see a profit from a decrease in the value of a debt object, while a creditor sees the same decrease as deterioration in creditworthiness. Bank shareholders may want to see bank deposits at fair value, but not depositors (who may be scared of a decline in the book value of their claims). The bank regulator can also take care of smaller deposits if such reporting would affect depositors' confidence in the banking system. While an investor may be happy with the volatility information disclosed in the fair value calculation, a central banker may not be concerned about the feedback effect on systemic risk. Bank regulators may also be concerned about increasing bank capital during speculative periods, which encourages unnecessary lending (Plantin, Sapra, & Shin, 2005).

2.1.2 Fair Value Accounting and Firm Value

Barth, Beaver and Landsman (2001) opined that accounting information is considered value-relevant if it has the predicted association with market-value of equity. Song, Thomas and Han (2010) also stated that value-relevant accounting information is both relevant to investors and reliable enough to be reflected in share prices. Armstrong, Guay and Weber (2010) opined that financial reporting using fair value provides relevant information to debt holders regarding the downside risk and evaluation of firm collateral, as well as information useful in assessing the timing and riskiness of firms expected future cash flows from existing projects and anticipated

investments. Nordlund and Persson (2003) in their study of accounting for investment property at fair value according to IAS 40 fair value model identified that certain problems arise with the use of fair value accounting and valuations, including the feasible accuracy of valuations and cyclical movements in values over time. They concluded that fair value accounting for investment property will result in a reduction in the significance of previous key accounting principles of realization and prudence concepts in favor of a nominally correct wealth measurement in financial statements. Cyclical movements in values over time may have considerable implications for reported earnings and reported equity. Furthermore, the uncertainty of property valuations is probably of such a magnitude that the consistency of both the income statement and statement of financial position might be questioned to a certain extent as a result of the application of the fair value model (Abiahu, Udeh, Okegbe & Eneh, 2010)

In the work of Yuan and Liu (2011) fair value accounting was found to be embedded with two categorical flaws: its non-complete existence which refers to the very fact that the required fair value might not exist under certain conditions; and the self-expansionist tendencies of fair value accounting. This, they conclude will lead to using fair value accounting to create a fair value even when it does not exist, which may expand much larger than normal net income and create a price bubble in the market.

2.1.3 Firm Performance

Leonard, Okoye, Kalu and Stanley (2018), reported that organizational performance reflects how successful the resources placed at the disposal of managers in an organization are utilized. The efficiency and effectiveness of a firm is measured by its performance. As indicated by Sonnentag and Michael (2001), when conceptualizing performance, one has to differentiate between an action aspect (that is behavioral) and an outcome aspect. According to them, the behavioural aspect refers to the result of individual behavior while the outcome aspect describes behavior which may produce outcome such as sales figures. Measurement of assets or liabilities utilizing fair value impacts organization's performance. The outcome of fair value measurement of asset and liability reflects on the statement of financial position either by increasing the value or reducing the value of the firm (Aghaleleghian & Oziegbe, 2022).

2.2 Empirical Review

Alkali, Bagudo and Aliyu (2023) tested the impact of honest fee accounting on percentage rate of indexed deposit cash banks in Nigeria from 2016 to 2022. The facts used changed into received from the yearly reviews of the banks. OLS regression changed into hired internal the evaluation of the facts. The outcomes from the regression evaluation display that profits

according to percentage, honest fee hierarchy, and honest fee thru different complete profits have substantial impact at the fee relevance of indexed deposit cash banks in Nigeria.

Damayanti and Sucipto (2022) tested dividend policy's moderating impact on corporation fee. They relied most effective on secondary sources, which include the yearly reviews and economic statements of organizations lively internal the economic area and indexed at the Indonesia Stock Exchange, for all of our facts. Using a scientific choice method, they had been capable of pick a random pattern of 26 firms. In this look at, they used the course evaluation capabilities of the statistical software Smart PLS. It suggests that When profits pass up, a company's really well worth is going up, however whilst liquidity is going down, it is going down again. Hendrani and Septyanto (2021) checked out the connection among the rate to e-e book ratio and 3 distinctive variables: go back on belongings (ROA), debt to fairness (DER), and corporation size (PBV). Participating organizations within the studies had been the ones within the meals and beverage production subsector that had been indexed at the Indonesia Stock Exchange (IDX) among 2014 and 2018. Return on Asset, the Debt to Equity Ratio, and Company Size changed into all proven to have a substantial effect at the fee of a corporation. It changed into observed that the ratio of debt to fairness has a terrible and statistically substantial impact at the fee of a corporation, while the ratio of go back on belongings has a fantastic and significant effect at the fee of a company. Jao,

Hamzah, Laba and Mediaty (2020) tested the relationship among economic overall performance, reputation, and corporation fee for non-economic organizations indexed at the Indonesia Stock Exchange. These studies checked out how a company's economic overall performance impacts its valuation. Between 2016 and 2018, 108 non-economic organizations had been decided on the use of a functional choice approach and indexed at the Indonesia inventory market. A course evaluation changed into achieved so that you can study the facts. The look at concluded that the fee of companies is strongly and favorably motivated via way of means of their economic overall performance.

Suhesti and Shinta (2019) decided the impact of economic traits available in the marketplace fee of publicly indexed companies withinside the automobile and thing sectors changed into investigated via way of means of Ratios of contemporary belongings to contemporary liabilities, long-time period debt to overall belongings, and go back on belongings had been the various metrics analyzed (ROA). The rate-to- e book fee (PBV) ratio changed into used to decide the company's fee. Using statistical methods, the look at had been capable of calculate how a good deal every impartial variable affected their based one. According to the results of a subset of the

research conducted, in the automotive and component sectors, neither CR nor DAR have a significant impact on firm value; instead, ROA is the key performance indicator. The outcomes of a battery of concurrent tests demonstrate that a number of different criteria influence the worth of vehicle and parts manufacturers.

Elshamy, Kayed and Hewaidy (2018) examined the impact of fair value measurements on the valuation relevance of traditional accounting metrics of earnings and book value. The study investigated the impact of the new IFRSs development on the value-relevance of earnings and book values in equity valuation. This study covers a period of 22 years (1992 to 2013) the period is partition into two distinct time periods. The first period includes years from 1992 to 2001 (mostly a historical cost accounting basis period) while the second includes years from 2002 to 2013 (a semi fair value accounting basis period). The Ohlson (1995) model and a technique developed by Theil (1971) were used to measure the overall value relevance of earnings and book value, the incremental explanatory power of earnings, and the incremental explanatory power of book values. The study reports that book values have significant effect on fair value.

Park (2018) examined market reaction to other comprehensive income. The study analyzes the information content of other comprehensive income using the ERC model. The study examines other comprehensive income incremental effect on earnings response coefficients (ERC). Analysis of the information content of other comprehensive income before and after international financial reporting standards (IFRS) to verify whether the information content varies as the format of other comprehensive income reporting changes from a foot note to the main text of the financial statement. In addition, they analyzed dividing other comprehensive income into positive other comprehensive income and negative other comprehensive income. Data from the period of 2007 to 2014 were used, beginning from when other comprehensive income information was first disclosed as a comment, for a total of eight years. The analysis reveals that under the condition in which the realized income is constant, other comprehensive income has additional information effects, in other words it means that other comprehensive income is value relevance.

Ahmadi, Garraoui, and Bouri (2018) investigated the significance of book value, earnings per share, and cash flow in Tunisian banks and other financial institutions. The study examines the relative value of book value, earnings and cash flows to security prices using an existing sample of financial companies listed on the Tunisian stock exchange over a seven-year period (2010-2016). The study reveals that profit, book value and cash flow are significantly and positively related to firm value.

Prihatnia et al. (2016) examined the relationship between earnings per share and value relevance. The study concluded that earnings per share are an important factor that determines the appropriateness of value, and investors use earnings per share to value companies. Information contained in stock earnings is said to cause changes in investors' reactions to future cash flow distributions, leading to changes in stock price.

Suadiye (2012) examines the significance of book value and earnings values of Turkish companies according to local GAAP and IFRS standards. The study empirically examined the impact of International Financial Reporting Standards (IFRS) on the value relevance of accounting information in Turkey. The stock valuation model developed by Ohlson (1995) was used in the research. The study analyzes the importance of the value of equity returns and book values produced according to Turkish local standards (2000-2002) and IFRS (2005-2009) and then compares the two periods to determine if the mandatory adoption of IFRS has an impact. . . on the valuable importance of accounting information. The results of the analysis show that profit and book value together and separately are positively and significantly related to stock price in two different reporting systems. In addition, the results show that the book value of equity is more important in terms of value than profit. A disadvantage of their study is that events may have overridden the result and thus the result may not be applicable to the previous season.

From the previous study, most of the related studies used different proxies for financial performance like earnings per share, return on equity, share price, and none used return on assets, in addition, only Alkali, Bagudo and Aliyu (2023) used proxy fair value through other comprehensive income, this observed dearth research on return on assets and fair value through other comprehensive income has been considered as another motivation to execute this study in in banking sector of Nigeria.

3. MATERIAL AND METHOD

Ex-post facto research design was employed for this study. An Ex-post Facto research determines the cause-effect relationship among variables. *Ex-post Facto* seeks to find out the factors that are associated with certain occurrence, conditions, events or behaviours by analyzing past events or already existing data for possible casual factors. The population of this study comprised fifteen (15) deposit money banks quoted on the Nigerian Exchange Group (NGX). The study covered eleven years annual reports and accounts of these banks from 2012 to 2022. This study purposively select seven (7) deposit money banks in Nigeria for the study.

Table 1: Sample of Quoted Deposit Money Banks on the Nigerian Exchange Group

1	Fidelity bank plc
2	FCMB plc
3	First bank plc
4	United bank of Africa (UBA)
5	Wema bank plc
6	Sterling bank plc
7	GTbank plc

Data for the study were extracted from secondary sources, from the audited annual accounts of the sampled banks in Nigeria. The data extracted include; independent variable: fair value accounting (FVA) proxied with fair value through other comprehensive income. The dependent variables in the study as proxies for financial performance are, Return on equity (ROE) and profit after tax. This study employed simple regression analysis and correlation coefficient matrix to test the formulated hypotheses with aid of E-View version 9..The data for the study were collected from annual reports and accounts of deposit money banks quoted on the Nigerian Exchange Group (NGX).

This study modified the Model Specification of Ohlson's (1995) price model is frequently used for value relevance study. The Ohlson 1995 model was adapted in order to explore the relationship between the market value of stocks and major accounting information variables, such as return on equity, profit after tax and return on assets.

The model estimates are as follows:

$SP_{it} = \alpha_0 + \alpha_1 EPS_{it} + \alpha_2 FVH_{it} + \alpha_3 FVTOCI_{it} + \mu_{it}$ -------------------------------------Eqn 1

Where;

SP_{it} = Share price of bank ì in year t.

α_0 = intercept

α_1- α_3 = Coefficient of the independent variables

EPS_{it} = Earnings per share of bank ì in year t

FVH_{it} = Fair value hierarchy of bank ì in year t

$FVTOCI_{it}$ = Fair value through other comprehensive income of bank ì in year t

μ_{it} = Residual/error-term of bank in year 't'

The logistic regression for this study modified in the following form:

$FVA_{it} = \alpha_0 + \alpha_1 ROE_{it} + \mu_{it}$ ……………………………….......Eqn 2

$FVA_{it} = \alpha_0 + \alpha_2 PAT_{it} + \mu_{it}$ …………………………………………..Eqn 3

Where:

FVA= Fair value accounting ì in year t

ROE= Return on equity ì in year t

PAT= profit after tax ì in year t

$\alpha 0$ = intercept

$\alpha 1$- $\alpha 3$= Coefficient of the independent variables

3.1 Decision Rule

The decision for the hypotheses is to accept the alternative hypotheses if the p-value of the test statistic is less or equal than the alpha and to reject the alternative hypotheses if the p-value of the test statistic is greater than alpha at 5% significance level.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 2: Descriptive Statistics

	FVA	ROE	PAT
Mean	0.012148	0.096982	20441909
Median	0.013070	0.094499	17768000
Maximum	0.023349	0.170750	46724000
Minimum	0.002452	0.027088	1820000.
Std. Dev.	0.005178	0.041615	13803811
Skewness	0.314833	0.055355	0.417203
Kurtosis	3.832679	2.288090	2.247796
Jarque-Bera	0.499507	0.237908	0.578437
Probability	0.778993	0.887849	0.748849
Sum	0.133631	1.066807	2.25E+08
Sum Sq. Dev.	0.000268	0.017318	1.91E+15
Observations	11	11	11

Table 2 presents the descriptive statistics for the dependent variable (FVA) and the independent variables (ROE, and PAT). The mean serves as a tool for setting benchmark. The median re-ranks and takes the central tendency. While the maximum and minimum values help in detecting problem in a data. The standard deviation shows the deviation/dispersion/variation from the mean. It is a measure of risk. The standard deviation is a measure that summarizes the amount by which every value within a dataset varies from the mean. It is the most robust and widely used measure of dispersion. The standard deviation in the tax revenues for the period 2012-2022

is 0.005, 0.042, and 13803811 for FVA, ROE, and PAT, respectively. Skewness and Kurtosis are contained in Jarque-Bera. Positively skewed is an indication of a rise in profit while negatively skewed is an indication of loss or backwardness. Jarque-bera is used to test for normality; to know whether the data are normally distributed.

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho_1:   Fair value accounting has not significantly effects return on equity of deposit money banks in Nigeria.

Table 3: Ordinary Least Square analysis between FVA and ROE

Dependent Variable: FVA

Method: Least Squares

Date: 11/23/23   Time: 19:47

Sample: 2012 2022

Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003150	0.002896	1.087728	0.3050
ROE	0.092787	0.027633	3.357849	0.0084
R-squared	0.556107	Mean dependent var		0.012148
Adjusted R-squared	0.506785	S.D. dependent var		0.005178
S.E. of regression	0.003636	Akaike info criterion		-8.232664
Sum squared resid	0.000119	Schwarz criterion		-8.160320
Log likelihood	47.27965	Hannan-Quinn criter.		-8.278268
F-statistic	11.27515	Durbin-Watson stat		0.722487
Prob(F-statistic)	0.008418			

In table 3, a panel least square regression analysis was conducted to test the relationship between return on equity and fair value accounting. Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 4.3, the value of adjusted R squared was 0.51, an indication that there was variation of 51% on FVA due to changes in ROE. This implies that only 51% changes in FVA of the bank could be accounted for by ROE while 49% was explained by unknown variables that were not included in the model. The probability of the slope coefficients indicate

that; P (0.008<0.05). The co-efficient value of; β_1= 0.093 implies that ROE is positively related to FVA, and was statistically significant at 5%.

The Durbin-Watson Statistic of 0.722487 suggests that the model does not contain serial correlation. The F-statistic of the FVA regression is equal to 11.275 and the associated F-statistic probability is equal to 0.008418, so the alternative hypothesis was accepted and the null hypothesis was rejected.

4.2.1.1 Decision

Since the Prob (F-statistic) of 0.008 is less than the critical value of 5% (0.05), then, it would be upheld that Fair value accounting has significantly effects return on equity of deposit money banks in Nigeria at 5% level of significance.

4.2.2 Hypothesis Two

Ho$_2$:   Fair value accounting has no significant effect on profitability of deposit money banks in Nigeria.

Table 4: Ordinary Least Square analysis between FVA and PAT

Dependent Variable: FVA

Method: Least Squares

Date: 11/23/23   Time: 19:48

Sample: 2012 2022

Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014329	0.002914	4.916374	0.0008
PAT	-1.07E-10	1.20E-10	-0.889757	0.3968

R-squared	0.280851	Mean dependent var	0.012148
Adjusted R-squared	-0.121277	S.D. dependent var	0.005178
S.E. of regression	0.005233	Akaike info criterion	-7.504800
Sum squared resid	0.000246	Schwarz criterion	-7.432455
Log likelihood	43.27640	Hannan-Quinn criter.	-7.550403
F-statistic	0.791667	Durbin-Watson stat	2.090234
Prob(F-statistic)	0.396756		

In table 4, a panel least square regression analysis was conducted to test the relationship between return on equity and fair value accounting. Adjusted R squared is coefficient of determination

which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 4.4, the value of adjusted R squared was 0.12, an indication that there was variation of 12% on FVA due to changes in PAT. This implies that only 12% changes in FVA of the bank could be accounted for by PAT while 88% was explained by unknown variables that were not included in the model. The probability of the slope coefficients indicate that; P (0.396>0.05). The co-efficient value of; β_1= -1.070 implies that PAT is negatively related to FVA, and was statistically significant at 5%.

The Durbin-Watson Statistic of 2.090 suggests that the model does not contain serial correlation. The F-statistic of the FVA regression is equal to 0.7917 and the associated F-statistic probability is equal to 0.396756, so the null hypothesis was accepted and the alternative hypothesis was rejected.

4.2.2.1 Decision

Since the Prob (F-statistic) of 0.398 is higher than the critical value of 5% (0.05), then, it would be upheld that fair value accounting has no significant effects profitability of deposit money banks in Nigeria at 5% level of significance.

CONCLUSION AND RECOMMENDATIONS

This study ascertained the effect of fair value accounting on the financial performance of deposit money banks in Nigeria during the period 2012-2022. Using Ex-Post Facto research design, the data were generated from annual accounts of the sampled banks. The results demonstrate that fair value accounting has significantly effects return on equity of deposit money banks in Nigeria at 5% level of significance. However, the study revealed that fair value accounting has no significant effects profitability and return on assets of deposit money banks in Nigeria at 5% level of significance. Based on the results obtain from the analysis it is therefore concluded that fair value accounting affects financial performance of deposit money banks in Nigeria.

Based on the findings and conclusion of this study;

1. It is consequently advocated that managers of indexed deposit cash banks in Nigeria must have interaction in sports that upsurge their sales as this will increase the price of shares.

2. Management of indexed deposit cash banks in Nigeria must make certain that inputs utilized in estimating honest price hierarchy are disclosed when you consider that its disclosure will increase percentage price.

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EFFECT OF TAXATION ON ECONOMIC GROWTH IN NIGERIA

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ABSTRACT:

This study assessed the effect of taxation on economic growth in Nigeria. There is the issue of under assessment of tax payers, poor administration of tax and connivance of tax payers and collectors leading to collecting less amount than expected. These amongst others are challenges hampering the adequate tax revenue generation to government that could help fund infrastructures that will spur economic growth. The specific objectives were to assess: the effect of petroleum profit tax (PPT), company income tax (CIT), value added tax (VAT), education tax (EDUTAX) and gas income (GASINC) on gross domestic product (GDP) of Nigeria. Taxation proxies were PPT, CIT, VAT, EDUTAX and GASINC, while the dependent variable was GDP. Five hypotheses guided the study and were tested at 5% level of significance. The research design was ex-post-facto, while descriptive statistics and multiple regression were used to analyze the data. The regression output showed that PPT had negative but significant effect on GDP; CIT had positive and non-significant effect on GDP; VAT had positive and significant effect on GDP; EDUTAX had positive but non-significant effect on GDP while GASINC had negative and non-significant effect on GDP. The prob (F-stat) was 0.000192 while R-squared value was 0.942871. The study recommended among others that the government should improve petroleum profit tax administration, blockage of leakages and judicious use of the revenue in productive sectors of the economy. Also, the government should properly harness the income from company tax as a macro-economic tool for economic growth. Furthermore, the government should continue to sustain the value added tax collection and investment measures so as to maintain its positive and significant effect on gross domestic product.

1. INTRODUCTION

Tax is a compulsory levy collected by the government from her citizens. These compulsory levies that individuals and businesses must pay to government are meant to generate revenue to finance various government expenditures. Taxes are usually levied on income, property, goods and services. The types of taxes collected in Nigeria include personal income tax, company income tax, value added tax, withholding tax, petroleum profit tax, capital gains tax, stamp duties, education tax. In Uzochukwu et al. (2021), tax has been ranked as the main supply of revenue in international locations. Aliyu and Mustapha (2020) opined that taxation is one of the oldest means by which the cost of providing essential services for the generality of people living in a given geographical area is funded. The federally collected taxes is done through the Federal Inland Revenue Service (FIRS), while the State Board of Internal Revenue Service administers the taxes collectible by the state governments. The revenue so collected is used by the government to deliver on its various infrastructure and socio-economic amenities provision for the comfortable existence of her citizens and successful operation of businesses for growth of the economy.

The revenue heads in Nigeria are divided into oil revenue and non-oil revenue. Tax falls under the non-oil revenue with its various types. The tax revenue to government seems inadequate compared to her needs, hence there is continuous expansion of the tax cum levy options and rate. This is done either by increase of tax rates or introduction of new tax or levy. The value added tax for instance was increased from 5% to 7.5% on 1ˢᵗ February, 2020 as a means to increase government revenue. Also, the Electronic Money Transfer Levy Regulations, 2022 was signed into law to provide guidance for the imposition, administration, collection and remittance of the Electronic Money Transfer Levy introduced by the Finance Act, 2020. This regulation provided for a singular and one-off levy of N50.00 on the receipt or transfer of any electronic transfer of N10,000.00 or above. The banks are to collect this levy and remit to the Federal Inland Revenue Service. These among others are ways the government is expanding her revenue source so as to be able to finance the provision of the needs of her teeming citizens and businesses operating in Nigeria.

According to Anisere-Hameed (2021), tax refers to compulsory payments by individuals and organizations to relevant government agencies and departments. Taxation is the collection of a share of individual and organization income and wealth by the government under the authority of the law (Ngwoke, 2019). The tax system being a major revenue source for government helps determine the economic outlook of the country. The government revenue is a determinant of government expenditure. The tax system helps the government to generate the revenue required for financing her various social and economic activities. It is important to note that it cannot be determined what an individual or business benefit directly on quid pro quo basis. Taxation helps

the government to achieve her set goals towards providing basic amenities for improved productivity. The eventual increased production of goods and services in the economy over a given period of time translates to economy growth.

Etim et al. (2020) opined that tax is a compulsory or mandatory levy charged by any authority or government on individuals or corporate income with a view to generating revenue for the provision of goods, services, and other social development to the citizenry. Anisere-Hameed (2021) highlighted four key things people must understand about taxation as: (i) Tax is a compulsory contribution made by the citizens to the government and this contribution is for general and common use. (ii) Tax imposes a general obligation on the tax payer to comply. (iii) Tax have the presumption that the contribution to the public revenue made by the taxpayer may not be equivalent to the benefits the taxpayer receives. (iv) Tax is not imposed on a citizen by the government because it has rendered specific services to him or his family.

The importance of taxation in Nigeria can be briefly highlighted as follows:
1) Source of income for the government: Tax is a major source of revenue to the government hence helping to fund the cost of governance.
2) Infrastructural development: The payment of taxes helps government to generate fund to finance her infrastructural or capital projects.
3) Educational support: The companies in Nigeria pay education tax to help the government raise fund to support the needs in the education sector.
4) Economic stabilization: Taxes help the government to raise funds to finance productive activities that will enhance economic growth and development.

Despite the various importance of taxation, the revenue growth is being hampered by paucity of data on those to be taxed, evasion of tax by citizens and businesses, inefficient monitoring and administration, corruption among others. It is important to note that although tax is mainly seen as a major revenue source to government, some may be imposed for other reasons. Tax in some cases is used to achieve income re-distribution, as fiscal policy tool, to discourage the production and consumption of certain commodities, for protection of infant industries by discouraging importation, curb inflation and reduce income differences among citizens. Despite the reasons adduced for tax imposition, the bottom-line is that revenue will accrue and eventually used by the government for socio-economic purposes. It is this provision of social amenities and infrastructure that spur productivity in the economy leading to increased gross domestic product. This could account for the argument by scholars that taxation is one of the budgetary tools that can be used to achieve economic growth.

Uzochukwu et al. (2021) stated that one of the major problems facing the taxation system in Nigeria is non-compliance among tax payers. Tax non-compliance comes in various forms inclusive of tax evasion or avoidance. Some tax payers keep exploiting every avenue available to avoid paying taxes, not minding that it is the major source of revenue for government expenditure. Also, while some see it as extortion others see the tax burden as being too high for them to bear either as individuals or as businesses. Furthermore, the unfavorable economic situation in the country over the years have made some businesses to shut down, while some incur more operating cost hence reducing their profit from which tax is payable. Anisere-Hameed (2021) stated that the role of tax revenue in promoting economic growth and development in Nigeria is not felt, primarily because of its poor administration, lack of awareness of the general public on the imperatives and maximum benefits of taxation, corruption of tax officials, tax avoidance and tax evasion by taxpayers, connivance of tax officials with taxing population, poor method of tax collection etc. The infrastructures (road, electricity, hospitals, water etc) which should be put in place from government revenue so as to support industries and achieve increased output of goods and services are lacking. There is also the issue of under assessment of tax payers, poor administration of tax and connivance of tax payers and collectors leading to collecting less amount than expected. These amongst others are challenges hampering the adequate tax revenue generation to government that could help in economic growth. Hence there is the need to have an up to date assessment of the effect of various tax components on economic growth in Nigeria.

1.1 Objectives of the Study

The broad objective of the study is to assess the effect of taxation on economic growth in Nigeria. This study specifically had the following objectives:

1. To assess the effect of petroleum profit tax on gross domestic product in Nigeria.
2. To ascertain the effect of company income tax on gross domestic product in Nigeria.
3. To examine the effect of value added tax on gross domestic product in Nigeria.
4. To assess the effect of education tax on gross domestic product in Nigeria.
5. To ascertain the effect of gas income tax on gross domestic product in Nigeria.

1.2 Research Hypotheses

The following hypotheses were accordingly formulated in their null forms:

H_{01}: Petroleum profit tax had no significant effect on gross domestic product in Nigeria.

H_{02}: Company income tax had no significant effect on gross domestic product in Nigeria.

H_{03}: Value added tax had no significant effect on gross domestic product in Nigeria.

H_{04}: Education tax had no significant effect on gross domestic product in Nigeria.

H_{05}: Gas income tax had no significant effect on gross domestic product in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 National Tax Policy

The National Tax Policy defines tax as a financial charge or levy imposed upon an individual or legal entity by a state or a legal entity of the state; it is a pecuniary burden laid upon individuals or property to support government expenditure (National Tax Policy, 2010). Uzochukwu et al. (2021) defined taxation as the obligatory or coercive cash collection through a levying authority, typically a government. In line with the forgoing, Chijioke et al. (2018) opined that tax is an obligatory levy by the government collected through its agency from its subjects. He further stated that effective taxation is important as a source of financial power for a government to provide social services for its citizens. Tax is a common and as well as major revenue source for the government geared towards her provision of public or social amenities and infrastructures. Tax is a compulsory levy imposed by government on individuals and companies for the various legitimate functions of the state (Anisere-Hameed, 2021). Tax therefore have to be paid not because the taxpayer want to but because the government have said it should be paid and there is punitive measures for non-payment.

A tax is a mandated payment or transfer from private persons, organizations, or groups to the government and a significant administrative pillar of any society (Osaretin et al., 2020). So tax is levied to help generate fund for effective and efficient administration of government. It is expected that these taxes generated will be used by the government to build industries or construct infrastructures that will help other businesses to have the conducive environment to thrive. The productive sectors of the economy (manufacturing, agriculture, mining, transportation, quarrying etc) should feel the effect of government expenditure. As government helps make businesses to thrive, it leads to increase in the domestic output of goods and services produced in the economy over time. It is the monetary measure of the market value of the goods and services produced in an economy over a given time that is referred to as gross domestic product. It is this value that is used commonly to measure economic growth in most countries. Ngwoke (2019) sums up the definition of tax succinctly as, a compulsory payment made by individuals and corporate bodies to the government for financing government expenditure or for general purpose of government aimed at improving the tax-payers welfare and in which both the taxpayer and the public at large benefit.

2.2 Theoretical Review

This study considered two theories related to this study. The first is the ability to pay theory propounded by MS Kendrick in 1939. The theory considers tax liability in its true form, which is compulsory payment to the state without quid pro quo. It does not assume any commercial or semi-commercial relationship between the state and the citizens. This theory postulates that a citizen is to pay taxes just because he can and his relative share in the total tax burden is to be determined by his relative paying capacity. This theory was bound to be supported by socialist thinkers because of its conformity with the ideas and concepts of justice and equity. The basic tenet of this theory is that the burden of taxation should be shared by the members of society on the principles of justice and equity and that these principles necessitates that the tax burden is apportioned according to payees relative ability to pay (Ngwoke, 2019).

The second is the benefits received theory of taxation (BRTT). This theory is believed to have been initiated by Knut Wicksell and popularized by Erik Lindahl. Its proponents argue that exchange relationship exist between the government of a people and the tax payers. On the basis of this relationship therefore, the government has a responsibility of providing goods, services and basic infrastructures for use by members of the society, who in return are expected to make contributions through taxation in proportion to whatever benefits that may have been derived from their access to the amenities, infrastructures, goods and/or services provided by government (Ideh, 2019).

2.3 Empirical Review

Uzochukwu et al. (2021) examined the effect of taxation on Nigeria's economy. They employed ex-post-facto research design for the study. Data were sourced from CBN statistical bulletin and Federal Inland Revenue Service report. Multiple linear regression was used to analyze the data and they found out that taxation has high significant and positive effect on the growth of Nigeria's economy.

Anisere-Hameed (2021) examined the impact of taxation on Nigeria's economic growth and development. The variables used to proxy taxation were petroleum profit tax, capital gain tax, company income tax. The ex-post-facto research design was adopted while Ordinary Least Square regression method was used to analyze the data gathered. Findings showed that PPT and CGT are insignificant in revenue generation towards the economic growth of Nigeria while CIT was significant.

Osaretin et al. (2020) studied the effects of taxation on Nigerian economic growth for the period 1990 to 2019. The data for the explanatory variables (Petroleum Profit Tax (PPT), Company

Income Tax (CIT), Custom and Excise Duties (CED) and Value Added Tax (VAT)) were sourced from federal inland revenue Service (FIRS) and Nigerian Bureau of Statistics (NBS), while that of the dependent variables (Mining & Quarrying (MQGDP) and Manufacturing & Processing (MPGDP)) were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin 2020. They carried out descriptive statistics test, Augmented Dickey-Fuller unit root test, Johansen Co-integration test, Auto Regressive Distributive Lag (ARDL). The results showed that PPT, CED and VAT have positive effects on the growth of mining and quarrying, with Company Income Tax (CIT) exerting a negative effect on them.

Aliyu and Mustapha (2020) assessed the impact of tax revenue on economic growth in Nigeria covering the period from 1981 to 2017. They employed time series data obtained from the CBN statistical bulletins, FIRS annual publications and National Bureau of Statistics (NBS) portal. The OLS and ARDL techniques were employed to estimate the relationships of the variables. The ARDL bound test showed that the variables are co-integrated while ARDL long-run estimation showed that petroleum profit tax, value added tax and government domestic debt are significant and positively related to GDP. Also, company income tax and customs and excise duties were significant but negatively impacted on economic growth.

Etim et al. (2020) assessed if taxation drive economic development in Nigeria using time series data obtained from the Central Bank of Nigeria (CBN) statistical bulletin, Federal Inland Revenue Service (FIRS) tax reports and Human Development Report by United Nations Development Programme (UNDP). The independent variables were company income tax (CIT), value added tax (VAT), personal income tax (PIT) and petroleum profit tax (PPT). The dependent variable was proxied by human development index (HDI). The data collected were analyzed using multiple regression. They found out that CIT, HDI, VAT had direct and significant relationship with HDI, while PIT and PPT had direct and insignificant relationship with HDI.

Ideh (2019) examined the relationship between components of tax revenue and economic development of Nigeria for the period 2003 to 2017. The ex-post-facto research design was adopted and secondary time series data were sourced. The proxies for tax revenue were value added tax, petroleum profit tax, personal income tax, company income tax, custom and excise duties, while real GDP and Human Development Index (HDI) were used to proxy economic development. The data were analyzed using the Autoregressive Distributed Lag technique. The findings of the study indicated that petroleum profit tax had negative relationship with real GDP and HDI.

Ngwoke (2019) assessed the effect of taxation on economic growth in Nigeria for the period 2007 to 2017. The proxies for taxation were petroleum profit tax, company income tax, custom and excise duty, while proxy for economic growth was real gross domestic product. The study adopted ex-post-facto research design and obtained data from Central Bank of Nigeria statistical bulletin. Analysis done included using unit root test and regression. The findings showed that Petroleum profit tax, company income tax and customs and excise duties all had significant effect on the real gross domestic product in Nigeria for the period reviewed.

Chijioke et al. (2018) examined the effect of taxation on economic growth in Nigeria covering the period from 1981 to 2019. Time series data of taxation variables (personal income tax, company income tax, and value added tax) were obtained from CBN bulletin, National Bureau of Statistics and World Bank Indicators, while economic growth proxy was gross domestic product. The data obtained were analyzed using descriptive, unit root, Augmented Dickey-Fuller, Bound Test for Co-integration, Ganger Causality and Vector Auto-Regression statistical tools. The Vector Auto-Regression results indicated that while all taxation variables significantly affect economic growth, the relationship was negative. The negativity attributable to taxation in the country could be that the tax collection mechanisms and administrative structure put in place are weak.

3. MATERIAL AND METHOD

The *ex-post facto* research design was adopted while data for the variables were obtained from the Federal Inland Revenue Service website. The data were analyzed using descriptive statistics and multiple regression technique. The time series data used for the study was from 2011 to 2022 (12 years).

The regression model relationship is:

$$Y_t = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 \ldots + bnXn + e$$

Where:

Y	= dependent variable
b_0	= intercept term
b_1, b_2, b_3	= parameters or coefficients of the model
X_1, X_2, X_3	= independent or explanatory variables.
e	= error term

The functional relationship of taxation and economic growth can be specified in the following model:

GDP = f(PPT, CIT, VAT, EDUTAX, GASINC)

The model is explicitly defined as follows:

$$GDP_t = b_0 + b_1 PPT_t + b_2 CIT_t + b_3 VAT_t + b_4 EDUTAX_t + b_5 GASINC_t + et$$

Where:

GDP = Gross domestic product.

PPT = Petroleum profit tax

CIT = Company income tax

VAT = Value added tax

EDUTAX = Education tax

GASINC = Gas income tax

The independent variables used to proxy taxation were petroleum profit tax, company income tax, value added tax, education tax and gas income tax. The variable used to proxy economic growth was gross domestic product at current basic prices. Eviews10 processing software was used for data analysis while the hypotheses were tested at 5% level of significance. The *a priori* expectation is that the independent variables (PPT, CIT, VAT, EDUTAX and GASINC) will have positive and significant effect on the dependent variable (GDP).

3.1 Decision Rule

Accept the null hypothesis if the probability value is greater than 0.05, otherwise reject null and accept the alternate hypothesis.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 1 shows the raw data on petroleum profit tax, company income tax, value added tax, education tax, gas income tax and gross domestic product at current basic prices.

YEAR	PPT ₦'Billion	CIT ₦'Billion	VAT ₦'Billion	EDUTAX ₦'Billion	GASINC ₦'Billion	GDP ₦'Billion
2011	3070	654	659	130	45	62980
2012	3201	820	710	188	9	71713
2013	2666	963	802	279	7	80092
2014	2453	1173	802	189	17	89043
2015	1289	1268	767	206	115	94144
2016	1157	933	828	130	85	101489
2017	1520	1215	972	154	34	113711
2018	2467	1340	1108	203	75	127736
2019	2114	1604	1189	221	21	144210
2020	1516	1275	1531	259	134	152324
2021	2008	1747	2072	189	140	173527
2022	4209	2649	2511	328	309	199336

Source: www.firs.gov.ng

Table 2: Descriptive Statistics.

	GDP	PPT	CIT	VAT	EDUTAX	GASINC
Mean	117525.4	2305.833	1303.417	1162.583	206.3333	82.58333
Median	107600.0	2283.500	1241.500	900.0000	196.0000	60.00000
Maximum	199336.0	4209.000	2649.000	2511.000	328.0000	309.0000
Minimum	62980.00	1157.000	654.0000	659.0000	130.0000	7.000000
Std. Dev.	42598.88	899.7633	525.2240	588.3642	59.09366	85.97723
Skewness	0.533621	0.590742	1.357009	1.320835	0.591016	1.561588
Kurtosis	2.194262	2.679945	4.678845	3.464913	2.687376	4.990026
Jarque-Bera	0.894109	0.749170	5.092205	3.597281	0.747466	6.857218
Probability	0.639509	0.687574	0.078387	0.165524	0.688160	0.032432
Sum	1410305.	27670.00	15641.00	13951.00	2476.000	991.0000
Sum Sq. Dev.	2.00E+10	8905314.	3034463.	3807897.	38412.67	81312.92
Observations	12	12	12	12	12	12

The above table displayed the descriptive statistical behaviour of all the parameters that were subjected to estimation in this study.

Estimation Command:

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LS GDP C PPT CIT VAT EDUTAX GASINC

Estimation Equation:

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GDP = C(1) + C(2)*PPT + C(3)*CIT + C(4)*VAT + C(5)*EDUTAX + C(6)*GASINC

Substituted Coefficients:

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GDP = 40120.8324088 - 11.3701120085*PPT + 30.4913861772*CIT + 59.5080555629*VAT + 6.75522655953*EDUTAX - 81.1025075151*GASINC

The above model showed that when all other variables are kept constant except PPT figure, a unit change in PPT will result to 11.37 decrease in GDP. Also, keeping all other variables constant except CIT, a unit change in CIT will result to a 30.49 increase in GDP. Bearing all other variables constant except VAT, a unit change in VAT will result to a 59.51 increase in GDP. A unit change in EDUTAX will result to a 6.75 increase in GDP keeping other variables constant. Furthermore, a unit change in GASINC will result to 81.10 decrease in GDP.

Table 3: Regression output

Dependent Variable: GDP

Method: Least Squares

Date: 11/13/23   Time: 17:13

Sample: 2011 2022

Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	40120.83	12974.64	3.092250	0.0213
PPT	-11.37011	3.858565	-2.946720	0.0257
CIT	30.49139	15.14691	2.013043	0.0908
VAT	59.50806	13.91752	4.275767	0.0052
EDUTAX	6.755227	73.60052	0.091782	0.9299
GASINC	-81.10251	69.66430	-1.164190	0.2885

R-squared	0.968839	Mean dependent var		117525.4
Adjusted R-squared	0.942871	S.D. dependent var		42598.88
S.E. of regression	10181.81	Akaike info criterion		21.60145
Sum squared resid	6.22E+08	Schwarz criterion		21.84390
Log likelihood	-123.6087	Hannan-Quinn criter.		21.51168
F-statistic	37.30964	Durbin-Watson stat		1.513168
Prob(F-statistic)	0.000192			

The value of R-squared given as 0.968839 and Adjusted R-squared of 0.942871 showed that the independent variables explained 93% (in real terms) of the changes in the dependent variable. Also, the prob(F-statistic) value of 0.000192 indicated that the model is fit to explain the relationships of the variables since it is less than 0.05. Durbin-Watson stat of 1.513168 which is nearer to 2 than 0 indicated that there is no autocorrelation in the residuals of the regression analysis.

4.2 Test of Hypotheses

Table 4: Summary statistics for hypotheses testing

Hypothesis	Variable	Coefficient	t-statistic	Probability	Decision
One	PPT	-11.37011	-2.946720	0.0257	Reject H_0
Two	CIT	30.49139	2.013043	0.0908	Accept H_0
Three	VAT	59.50806	4.275767	0.0052	Reject H_0
Four	EDUTAX	6.755227	0.091782	0.9299	Accept H_0
Five	GASINC	-81.10251	-1.164190	0.2885	Accept H_0

4.2.1 Hypothesis One

H_o: PPT had no significant effect on gross domestic product in Nigeria.

The t-statistic value is -2.946720 while the probability value is 0.0257 which is less than 0.05 level of significance. The null hypothesis is therefore rejected and it is concluded that PPT had significant effect on gross domestic product in Nigeria for the period reviewed.

4.2.2 Hypothesis Two

H_o: CIT had no significant effect on gross domestic product in Nigeria.

The t-statistic value is 2.013043 while the probability value is 0.0908 which is higher than 0.05 level of significance. The null hypothesis is therefore accepted and it is concluded that CIT had no significant effect on gross domestic product in Nigeria for the period reviewed.

4.2.3 Hypothesis Three

H_o: VAT had no significant effect on gross domestic product in Nigeria.

The t-statistic value is 4.275767 while the probability value is 0.0052 which is less than 0.05 level of significance. The null hypothesis is therefore rejected and it is concluded that VAT had significant effect on gross domestic product in Nigeria for the period reviewed.

4.2.4 Hypothesis Four

H_o: EDUTAX had no significant effect on gross domestic product in Nigeria.

The t-statistic value is 0.091782 while the probability value is 0.9299 which is greater than 0.05 level of significance. The null hypothesis is therefore accepted and it is concluded that EDUTAX had no significant effect on gross domestic product in Nigeria for the period reviewed.

4.2.5 Hypothesis Five

H_o: GASINC had no significant effect on gross domestic product in Nigeria.

The t-statistic value is -1.164190 while the probability value is 0.2885 which is greater than 0.05 level of significance. The null hypothesis is therefore rejected and it is concluded that GASINC had no significant effect on gross domestic product in Nigeria for the period reviewed.

CONCLUSION AND RECOMMENDATIONS

This study showed that the taxation variables used in this study jointly had significant effect on gross domestic product in Nigeria for the period reviewed. Specifically, three of the taxation proxies (CIT, VAT and EDUTAX) had positive coefficients, while two (PPT and GASINC) had negative coefficients. Also, two taxation proxies (PPT and VAT) individually had significant effect while three variables (CIT, EDUTAX and GASINC) individually had non-significant effect on gross domestic product in Nigeria. These negative coefficients and non-significant effects seen in this study were not anticipated. It is therefore imperative that the government take measures to address them. This study concluded that the model was statistically significant given its prob(F-statistic) value of 0.000192.

In view of the findings of this study, the following were recommended:

1. The government should ensure improve petroleum profit tax administration, blockage of leakages and judicious use of the revenue in productive sectors of the economy. This will help reverse its negative relationship with gross domestic product.

2. The government should properly harness the income from company tax as a macro-economic tool for economic growth. This will possibly help to reverse its non-significant effect on gross domestic product.

3. The government should continue to sustain the value added tax collection and investment measures so as to maintain its positive and significant effect on gross domestic product.

4. The government should sustain and even fine-tune the collection and use of education tax to develop our tertiary institutions. The proper use of this fund in critical sectors in the education sector will sustain its positive relationship and possibly achieve a significant effect in due course.

5. The gas income administration need to be overhauled. Loopholes and lapses need to be corrected so as to reverse the negative and non-significant relationship it had.

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ABNORMAL DISCRETIONARY EXPENSES AND FINANCIAL PERFORMANCE OF LISTED MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT:

This study examined the effect of abnormal discretionary expenses on financial performance of listed manufacturing firms in Nigeria for a period of ten (10) years covering from 2013-2022. Sudden collapse of companies that once appeared viable and futuristic is a serious concern. Panel data were used in this study, which were obtained from the annual reports and accounts of twenty (21) sampled listed manufacturing firms for the period 2013-2022. Ex-Post Facto research design was employed. Inferential statistics using Pearson correlation coefficient, Multicollinearity test, Panel Least Square (PLS) regression analysis and Hausman test were applied to test the hypotheses of the study. The results revealed that abnormal corporate social responsibility cost has a significant and positive effect on cash value added (β_3=0.011970; p-value = 0.0088); abnormal employee benefit has a significant but negative effect on cash value added (β_4=-0.036034; p-value = 0.0010) of listed manufacturing firms in Nigeria at 5% level of significance respectively. In conclusion, the study found that abnormal discretionary expenses has a significant effect on financial performance of listed manufacturing firms at 5% level of significance. The study recommended amongst others that firms should discretionally utilize both ACSRC and EAB to improve and sustain performance.
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1. INTRODUCTION

The abnormal discretionary expenses refers to discretionary expenses that is unusually high or low, compared to what is expected. Discretionary expenses are those that are not essential to a company's operations and they can be reduced or eliminated if needed (Bergstresser & Phillippon, 2006). Some examples of discretionary expenses includes corporate social responsibility cost, employee abnormal benefit, equipment maintenance cost, advertising , travel and entertainment. So abnormal discretionary expenses would be when these types of expenses deviate from its usual levels (Zhang & Abraham, 2020). Accordingly, these could also be viewed as those expenses

that would be expected to deviate from normal levels if a decision were to be made in opposite direction. The empirical research on earnings management has substantial evidence of the manipulation of the earnings on three main components of cash flows namely operating, financing, and investing activities and discretionary expenditure such as production expenses, inventory, and sales to ensure the financial target is met. Some managers might reduce the fluctuation in cost from one period to another period in ensuring that stable earnings are disclosed to the investors (Lisboa & Kacharava, 2018). Earnings management occurs when managers uses abnormal discretionary expenses transpire to adjust financial reports to either mislead stakeholders about the underlying economic performance of the company or to control the contractual outcomes that depend on reported accounting figures. In essence, sudden collapse of some companies that once appears viable and futuristic through its financial report has been an issue that calls for serious attention. It is against this backdrop that this study tends to ascertain the effect of abnormal discretionary expenses on financial performance of listed manufacturing firms in Nigeria.

1.1 Objectives of the Study

The main objective of this study is to examine the effect of abnormal discretionary expenses on cash value added. Specifically, the objectives are to:

1. ascertain the effect of abnormal corporate social responsibility expenses on cash value added of listed manufacturing firms in Nigeria
2. evaluate the effect of employees abnormal benefit on cash value added of listed manufacturing firms in Nigeria

1.2 Research Hypotheses

Similarly two research hypotheses, in its null forms, were formulated to help achieve the objectives of this study.

Ho_1: Abnormal corporate social responsibility cost has no significant effect on cash value added of listed manufacturing firms in Nigeria.

Ho_2: Abnormal employees benefit has no significant effect on cash value added of listed manufacturing firms in Nigeria

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Abnormal Discretionary Expenses

The discretionary expenses refers to discretionary expenses that is unusually high or low, compared to what is expected. Discretionary expenses are those that Are not essential to a company's operations and they can be reduced or eliminated if needed

(Bergstresser&Phillippon2006). Some examples of discretionary expenses includes advertising, travel and entertainment. So abnormal discretionary expenses would be when these types of expenses deviate from their usual levels (Zhang & Abraham, 2020). Abnormal discretionary expenses are those expenses that would be expected to deviate from normal levels if a decision if a decision were to be made in opposite direction (Charles T.Homgren, Walter T. Harrison, and Garry L Sunsem)

2.1.2 Abnormal Corporate Social Responsibility

Abnormal corporate social responsibility cost refers to the cost that a company incurs in order to engage in CSR activities that go beyond what is considered normal for the industry. The costs could include things like environmental protection, employees training and development, and charitable giving. So, abnormal corporate responsibility cost is essentially the cost of going above and beyond what is expected of a company in terms of its social responsibility. (Dung, & Dang, 2021). There are many different types of corporate social responsibility (CRS) costs that companies may incur. For example, companies may spend money on initiatives like community development, employee training, environment protection, and disaster relief. Companies may also donate money to charitable causes or invest in sustainability initiatives (Saeed, Mudliar & Kumari, 2023). Some example of CRS cost that have been studied by researchers include advertising expenses related to social responsibility, philanthropic donation, and expenditures on environmental protection (Johansson, Hiswåls, Svennberg & Macassa, 2022).

2.1.3 Employee Abnormal Benefit

Abnormal employee benefits are those that are not usually provided by a company, for example, a company may offer an employee benefit like paid parental leave, which is not considered a normal benefit in most industries. Other examples of abnormal employee benefits could include paid volunteer time, or educational assistance and so on (Lin, Tang, Li & He, 2023). It can be a way for a company to manage its earning by increasing its expenses. For example, company may offer more generous benefits than usual in order to lower its taxable income which could include things like offering more vacation days, higher salaries, or increased retirement contributions. By so doing, the company may be able to reduce its taxes and improve its financial performance (Bryson & Freeman, 2019). There are many different types of employee benefit that companies may offer. Some common examples include health insurance, paid time off, retirement plans, and life insurance. In addition, some companies may offer more unique benefits like onsite child care or tuition reimbursement (Zhang & Ning, 2021).

2.1.4 Financial Performance

The financial performance identifies how well a company generates revenues and manages its assets, liabilities, and the financial interests of its stakeholders and stockholders (Kenton, 2023). Analysis of financial performance metrics can be used to identify internal investment opportunities, like automating repetitive processes to increase productivity, and can help maintain positive cash flow. In other words, it can keep the business's operational and financial aspects in sync (Murry, 2023). In other words, it is a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability. It is measured through various business-related formulas that allow users to calculate exact details regarding a company's potential effectiveness. For internal users, financial performance is examined to determine their respective companies' well-being and standing, among other benchmarks. For external users, financial performance is analyzed to dictate potential investment opportunities and to determine if a company is worth their while (Luther, 2023). Financial performance is **a** subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Kenton, 2023).

There are many stakeholders in a company, including trade creditors, bondholders, investors, employees, and management. Each group has an interest in tracking the financial performance of a company. When a business examines its financial performance, many factors come into play, including measures like profitability, liquidity and efficiency. The business may be profitable, but inefficient accounts receivable processes could leave it without the cash to pay bills on time. So, for example, even with strong growth in sales, a company that lacks efficient cash management may not have the cash on hand to pay employees, restock inventory or pay suppliers. Financial performance takes all these aspects into account when determining a company's financial strength by analyzing the business's financial statements and other data (David, 2023).A company in good financial health will pay its bills on time and maintain good business credit.

2.1.5 Cash Value Added

Cash value added (CVA) is a measure of a company's ability to generate cash flow above and beyond the required return to its investors (Bloomenthal, 2022). Cash value added is the measure of company performance that looks at how much money a company generates through its operations (Kvilhaug, 2022). A high cash value added figure is beneficial for both companies and investors, as it demonstrates a company's ability to generate cash from one financial period to another. (Richards, 2023). The cash value added metric is one way to measure the real profitability of a business, beyond what is required to pay the bills and satisfy the investors (Leigh, 2023).

Generally speaking, a high CVA indicates a company's ability to produce liquid profits from one financial period to another.

CVA = gross cash flow - economic depreciation - capital charge

Where:

1 Economic depreciation is [WACC / (1+WACC)^n -1]

2 Gross cash flow is adjusted profit + interest expense + depreciation

3 The capital charge is the cost of capital x gross investment

4 Gross investment is net current assets + historical initial cost

A value of more than 1.0 indicates that a company is profitable, while a value below 1.0 suggests it is failing to return a profit (Knueven, 2023).

2.2 Theoretical Review

2.2.1 Income Smoothing Theory

Income smoothing theory is the idea that companies try to smooth out their earnings over time, so that their financial results are more predictable and less volatile. This theory suggests that companies may engage in activities like assets sales or debt insurance in order to achieve smoother earnings. Income smoothing is an aspect that is usually considered when discussing about real earnings management. It has been noted that smoothing occurs either intentionally or during recognition, measurement and disclosure of financial information (Almeida, Neto, Bastianello & Moneque, 2012). There are various models that have been developed over time to measure income smoothing practices among companies. The most notable model is the Eckel's model which was developed in 1981. According to his model, income smoothing is divided into: designed smoothing - which is the management's intentional practice to manipulate earnings and; natural smoothing - that which occurs naturally without resulting in the manipulation of a firm's profits. Eckel's model is based on the assumption that revenue and costs tend to become linear over a period of time. This means that they grow and decline at the same rate therefore, in a situation where a linear relationship is not observed means that management may have engaged in income smoothing. When the coefficient for profits fall below that of revenues then it goes to show that the company is engaging in artificial smoothing of the profits This study is anchored on this theory because in a quest to meet up with their desired goal/profit, managers do some manipulations in the its discretionary expenses

2.3 Empirical Review

Earning manipulation activities like abnormal discretionary expenses is not new in research world, a lot of scholars has done some research on issues that has to do with manipulation of earnings and abnormal discretionary expenses.

Xie, Cheng, and Zang (2011) examined the effect of abnormal discretionary expenses and profitability, and found out that abnormal discretionary expenses are negatively related to future profitability.

Gomes and Rahman (2019).They examined the relationship between abnormal discretionary expenses and future firm value, and found that high abnormal discretionary expenses are associated with lower firm value

Okafor, Ezeagba, and Onyali (2018) examined how earnings management affects performance of Nigerian firms. 17 firms were sampled. A simple regression technique was used in analyzing data. The findings showed that the independent variable negatively and insignificantly affect the dependent variable. The recommendation made was that further research should be done in all the sectors to find out the industries in which the subject matter significantly affects their performance, which will help management by exception. Significantly affects their performance, which will help management by exception.

Ghozali, Harto and Yuyetta (2018) researched on free cash flow, investment inefficiency, and earnings management. The study was aimed at testing investment inefficiency of fixed assets in mediating the relationship between free cash flow and earnings management and to test the controlling shareholders in moderating the relationship between free cash flow and fixed assets investment inefficiency. The research problem proposed in this study is whether the use of free cash flow for the investment inefficiency of fixed assets is able to ultimately improve the managerial performance. The research investigated new empirical evidence related to management earnings practices caused by free cash flow fixed assets investment inefficiency. The study was conducted on all the manufacturing firms listed on the Indonesia stock exchange from 2010 to 2015. The data used are secondary data in the form of the firms' financial statements. Using purposive sampling, 314 units were analyzed from 69 manufacturing firms. The estimation of the path model was completed using Structural Equation Modeling (SEM) by Warp PLS program version 5.0. The results showed that free cash flow is positively related to earnings management. Fixed assets investment inefficiency is able to mediate the relationship between free cash flow and earnings management.

Osma, Grande-Herrera, and Vázquez (2017) worked on the role of independent directors on earnings management: Evidence from individual incentives, the role of independent directors on earnings management. The authors presumed that independent directors' behavior hinges critically on their individual incentives. Using a large US sample for the period 1997 to 2013, the study constructed a measure of within-board heterogeneity among independent directors' incentives that is exogenous to a single firm's choices. Using this measure, it was found that individual incentives influence boards of directors' ability to constrain earnings management. In particular, it was shown that boards composed of independent directors with greater individual incentives lower real earnings management and increase informative accrual-based earnings management. Moreover, it was also believed to have provided an evidence of individual incentives influencing the firm information environment. The evidences highlight the importance of independent directors' individual incentives to carry out their fiduciary duty to monitor the financial reporting process.

Mungai (2021) conducted a study, utilizing a regression evaluation of the sum of all current accruals (constant) and other variables that were independent, which were interest rates, inflation, and money supply. The investigation revealed a nuanced association between the predictor variables and earnings management. As a result, Mungai postulated that there may be supplementary factors that influence the decision-making process of managers with regard to managing earnings beyond those that were accounted for in the study. This finding emphasizes the need for further investigation to gain a more thorough understanding of the underlying dynamics at play. According to Li et al., (2020) the empirical research suggests that companies that face financial distress are inclined to undertake accrual earnings management while avoiding real earnings management. Additionally, it has been established that internal control mechanisms can be essential in lessening the connection between financial hardship and earnings management by constraining both accrual and actual earnings management practices. These results emphasize the significance of implementing efficacious internal controls to thwart financial statement misrepresentation during periods of financial distress. Furthermore, it has been found that the practice of earning management and the provision of subsidies have no significant impact on the financial distress experienced by state-owned enterprises. The management of such entities has been observed to engage in earnings management activities, but only within a certain threshold, so as not to adversely affect their financial stability (Sayidah et al., 2020). This underscores the importance of maintaining a delicate balance between the desire to maximize profits and the need to ensure sustainable financial performance.

Akintoye et al. (2021) investigated how sustainability reporting affected abnormal operating cash flows in multinational companies operating in Sub-Saharan Africa. The study focused on five multinational companies from each of the ten countries, covering the period between 2010 and 2019. The results showed that sustainability disclosure had a significant impact on abnormal operating cash flows in these corporations, suggesting that it also influenced their earnings management. The authors suggested that management of international companies in Sub-Saharan Africa should strictly adhere to sustainability reporting practices to improve their earnings quality and reduce the need for earnings management practices.

Hashim, Salleh, and Ariff (2013) carried out a study on the underlying motives for earnings management: directors' perspective. The paper provided evidence on the motives for directors to manage earnings. Adapting theory of reasoned actions, we examine three different motives (i.e. altruistic, speculative, and pressure from affiliated parties) for directors to manage earnings. It was found that the primary motive for directors to be involved in earnings management activity is derived from altruistic motivation, which referred to the motive that involves concern about the benefits of company. Directors work hard to meet market expectations and are more concerned about their company's reputation rather than their own personal benefits. Regarding the application of GRAR metric, it was found that only 11 publications used the isolated model of actual activities. In contrast, 39 publications applied together GRAR and models based on accruals. In view of these results, it is assumed that the theme and the model proposed by

3. MATERIAL AND METHOD

The research work employed *ex-post facto* research design using secondary data, for ten (10) years from 2013—2022. The justification using this type of methodology is that the statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible, impractical, or unethical (Kurawa& Ahmed, 2020). Of the population size of 59 listed manufacturing companies in Nigeria as at December 31st 2022, 21 firms was purposively sampled. To this end, the Panel least square regression analysis technique was used to test the relevant hypotheses in this study.

Table 1 Operationalization of Variables

Variable Type	Indicators	Variable Symbols	Measurement
Independent Variable *Abnormal Discretionary Expenses*	Abnormal Corporate Social Responsibility Expenses	ACSRC	If a firm reports on ACSR item; We score 1 otherwise 0
	Employees Abnormal Benefit	EAB	If a firm reports on EAB item; We score 1 otherwise 0
Dependent Variable *Financial Performance*	Cash Value Added	CVA	Gross Cash Flow - Depreciation - Capital Charge

Researchers' concept, 2023.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 2 Abnormal Discretionary Expenses and Financial Performance

Dependent Variable: CVA

Method: Panel Least Squares

Date: 11/17/23   Time: 11:20

Sample: 2013 2022

Periods included: 10

Cross-sections included: 21

Total panel (balanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.912422	1.199926	5.760707	0.0000
ACSRC	0.011970	0.004475	2.674807	0.0088
EAB	-0.036034	0.010653	-3.382468	0.0010

R-squared	0.769055	Mean dependent var	3.464000
Adjusted R-squared	0.740813	S.D. dependent var	2.669567
S.E. of regression	1.996270	Akaike info criterion	4.278563
Sum squared resid	374.5990	Schwarz criterion	4.434873
Log likelihood	-207.9282	Hannan-Quinn criter.	4.341825

F-statistic	46.60855	Durbin-Watson stat	1.692356
Prob(F-statistic)	0.000000		

Source: E-Views 10 Regression Output, 2023

Table 2 shows the output of regression on the effect of abnormal discretionary expenses on cash value added and the result of the model is written as:

$$CVA_{it} = 6.912422 + 0.011970ACSRC_{it} - 0.036034EAB_{it} + \mu_{it}$$

The model infers that 1% increase in ACSRC will exert 1.20% increase on CVA, while 1% increase in EAB will cause CVA to reduce by 3.60% of listed manufacturing firms in Nigeria respectively. It also shows that ACSRC (β_3=0.011970) have a positive relationship towards CVA, while, EAB (-0.036034) negatively relates with CVA. The slope coefficients reveal that; $P(x_1=0.0088; x_2=0.0010;)$. The model delineate that at 95% confidence level, there is a significant positive relationship between ACSRC and CVA; a negative but significant relationship between EAB and CVA. The Durbin-Watson Value of 1.692356 buttressed the fact that the model does not contain auto-correlation, thereby, making the regression fit for prediction purpose since it is not more than 2.0 approximately. The adjusted R-Squared of 0.740813 shows that 74.08% of the systematic variation in CVA could be explained by ACSRC and EAB while the remaining 25.92% is explained by the error term as part of the CVA which is not interpreted by the regression model.

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho$_1$: Abnormal corporate social responsibility cost has no significant effect on cash value added of listed manufacturing firms in Nigeria.

Table 2 above reveals that while the outcome of the t-statistics (2.674807) indicated a positive and strong effect of abnormal corporate social responsibility cost on financial performance of the sampled manufacturing firms, herein proxied with cash added value, the p-value indicator of 0.0088 further lend credence to the earlier observation made that such effect is statistically significant in every sense.

4.2.1.1 Decision

Since the p-value obtained (0.0088) is less than 0.05, the alternate hypothesis is accepted, and this implies that Abnormal corporate social responsibility cost has a strong, significant and positive effect on cash value added of listed manufacturing firms in Nigeria at 5% level of significance (t-statistics = 2.674807; p-value = 0.0088).

4.2.2 Hypothesis Two

Ho$_2$: Abnormal employees benefit has no significant effect on cash value added of listed manufacturing firms in Nigeria

Table 2 above reveals that while the outcome of the t-statistics (-3.382468) indicated a negative but strong effect of abnormal employee benefit on the financial performance of the sampled manufacturing firms, herein proxied with cash added value, the p-value indicator of 0.0010 further lend credence to the earlier observation made that such effect is statistically significant in every sense.

4.2.2.1 Decision

Since the p-value obtained (0.0010) is less than 0.05, the alternate hypothesis is accepted, and this implies that abnormal employee benefit has a strong, significant but negative effect on cash value added of listed manufacturing firms in Nigeria at 5% level of significance (t-statistics = -3.382468; p-value = 0.0010).

CONCLUSION AND RECOMMENDATIONS

Based on the findings made by the study that abnormal corporate social responsibility cost has a significant and positive effect while employee abnormal benefit has strong, significant but negative effect on financial performance of listed manufacturing firms at 5% level of significance, Based on the findings of this study, the following recommendations were made:

1. Firms should discretionally utilize abnormal corporate social responsibility cost to sustain its cash value added.

2. Firms' management should also envisage policies that will attract, motivate and retain top talent so as to boost the cash value added for the period.

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DEBTORS MANAGEMENT AND FINANCIAL PERFORMANCE OF LISTED PHARMACEUTICAL COMPANIES IN NIGERIA

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ABSTRACT:

The study examined the effect of debtors management on financial performance of listed pharmaceutical companies in Nigeria. The ex post facto research design was adopted. The population of the study comprised of seven (7) listed pharmaceutical companies on the Nigeria Exchange Group in 2023. The entire seven (7) listed pharmaceutical companies was chosen as the sample size using the census approach. Data was obtained from the financial report of selected listed pharmaceutical companies on the Nigerian Exchange Group for the period of 2015-2019. The data collected was analysed using the Pearson correlation coefficient and multiple regression computed with the aid of Stata12 software. The study revealed that average collection period has a significant effect on net profit margin whereas debtor turnover does not have any significant effect on net profit margin of listed pharmaceutical companies in on the Nigerian Exchange Group. The study recommended that pharmaceutical companies should reduce average collection period in order to improve their financial performance. Finally, Pharmaceutical companies should maintain their debtor turnover to have a good net profit margin.

1. INTRODUCTION

The performance of firm is aimed at meeting the interest of various stakeholders through effective and efficient operating activities such as increase turnover and efficient noncurrent asset utilization. The firm's level of goal achievement in terms of shareholders wealth maximization is well articulated by the information presented in the financial statements (Chimaleni et al., 2015). Financial performance will be positive if all things and strategies are well in the organization, and it would be negative if things are not working in favour of the company (Bhasin, 2020). Bhasin, (2020) further asserts that long term financial performance is essential to understand the future of

the company, while short term financials is crucial to understand if an implemented policy is working or not.

Financial performance is an essential measure to access the wellbeing of a company. This measures the ability of the company to utilize its resources efficiently and effectively to achieve the desired result. In the view of Kenton (2021), financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues". Turyahebya (2018) defines financial performance as the ability to operate efficiently, profitably, survive, grow and react to the environmental opportunities and threats. For a firm to achieve significant improvement in its financial performance indicators, there must be efficient debtor's management which entail proper management of their receivables. Poor management of receivables will definitely result into bad debts which lowers the business financial performance (Oyodonghan & Bingilar., 2014). Debtors management is a strategy that involves the process of designing and monitoring the policies that governs how a company extents credit to its customer base. The idea behind this process is to minimize the amount of bad debt that the company will eventually incur due to customers failing to honour their commitments to repay the total amount of the credit purchase (Iyekoroghe, 2020). The primary goal of debtors management is to optimize cash flow by converting credit sales into cash as quickly as possible while minimizing the risk of non-payment or late payment (Raheman & Nasr, 2017).

Pharmaceuticals companies in Nigeria are faced with a lot of problem when management its debtors. Offering extended credit terms to customers can result in the delayed payments and negatively impact the company's cash flow. In the pharmaceutical industry, there are stringent regulations that companies must comply with. Managing debtors while adhering to these regulations can be complex. Also, inefficient debtor management can lead to a lengthy receivables turnover cycle, impacting the company's liquidity and ability to invest I research and development. To address these issues, pharmaceutical companies needs to oprerate a robust debtors management. Prior researches have been carried out on the relationship between debtors management and financial performance in various sectors like Manufacturing, construction, insurance and banking both Nigeria and abroad. Although many of scholars agree that effective debtors management influence firms financial performance. Contradictory results were found about the effect of debtors management on financial performance. Some researchers found a positive relationship (Dan 2020; Wasike, 2019; Cheptum, 2019) while others found out a negative relationship (Dirie & Ayuma, 2018; Otieno et al., 2016; Kevin & Omagwa, 2017). Therefore, this present research aims to fill this gap through an empirical investigation into the effect of debtors management on financial performance of listed pharmaceutical companies in Nigeria.

1.1 Objectives of the Study

The broad aim of this study is to determine the effect of debtors' management on financial performance of listed pharmaceutical companies in Nigeria. Specifically, the study intends to:

1. ascertain the influence of average collection period on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group.

2. ascertain the influence of debtor turnover on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group.

1.2 Research Hypotheses

The following research hypotheses were formulated and tested in this study.

Ho_1:   Average collection period does not have any significant influence on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group.

Ho_2:   Debtor turnover does not have any significant influence on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Debtors Management

Debtors management also known as credit management refers to all the activities that a firm adopts when it comes to delivering and collection of payments upon issuing credit (Murkhejee, 2014). Debtor management is a strategy that involves the process of designing and monitoring the policies that govern how a company extends credit to its customer base. The idea behind this process is to minimize the amount of bad debt that the company will eventually incur due to customers failing to honour their commitments to repay the total amount of the credit purchases. Typically, the process of debtor management begins with evaluating potential customers in terms of credit worthiness, identifying a credit limit that carries a level of risk that the company is willing to assume, then monitoring how well the customer makes use of that available credit, including making regular payments within the terms and provisions associated with the credit account (Tatum, 2022). Debtor management is central to the effective cash flow of business. Without an effective debtor control system, the finance of a business will be vulnerable.

Debtor management is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2017). Dilemma in debtor management is to achieve desired trade-off between credit and profitability (Raheman & Nasr, 2017). Debtor management is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk.

2.1.2 Average collection Period

Accounts receivable is the money owed to the company as a result of having sold its products to customers on credit (Kontus, 2013). Accounts receivable management includes establishing a credit and collection policy. Credit policy consists of four variables namely credit period, discount given for early payment, credit standards and collection policy. The three primary issues in accounts receivable management are to whom credit should be extended, the terms of the credit and the procedure that should be used to collect the money (Kontus, 2013).

The average collection period also referred to as debtor days or days sales outstanding (DSO), measures the number of days, weeks or months debts remain uncollected or unpaid. A higher ratio indicating longer collection period shows inefficient debtors/credit management, while a shorter or lower ratio is a sign of efficient debtor's management (Ogaluzor, 2022).

It is measured as

$$\text{Average Collection Period} = \frac{\text{Trade Receivables}}{\text{Annual Sales}} * 365$$

2.1.3 Debtor Turnover

Debtor turnover also known as account receivable turnover, measures the frequency at which debtors are turned over into cash. A high debtor's turnover ratio is an indication of good debtor's management while a lower ratio portrays inefficient debtor's management (Ogaluzor, 2022). It measures how many times in a given time period (usually a month, quarter, or year) a company collects its average accounts receivable. One of the most commonly used metrics for determining the operational efficiency and overall effectiveness of your company's accounts receivable performance is the accounts receivable turnover ratio. Accounts receivable turnover is the period when receivables are tied from the occurrence of receivables until they can be collected in cash and finally can be bought back into inventory and sold on credit to become receivables back (Harjito & Martono, 2011).

Debtor turnover is measured as

$$\text{Debtor Turnover} = \frac{\text{Annual Sales}}{\text{Trade Receivables}}$$

2.1.4 Financial Performance

Financial performance is viewed as the degree to which financial objectives being or has been accomplished and is an important aspect of finance risk management. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Verma, 2021).

Financial performance predominantly shows the sector of a business outcome as well as results, showing the overall financial health condition of the business sector over a particular time period (Naz et al., 2016). They further asserted that it shows how well a firm utilizes her resources in minimizing the wealth and profitability of the shareholders. It measures a company's health condition financially over a given period (Matar & Eneizan, 2018; Naz et al., 2016) and shows the performance by the leadership (executive) of the organization (Matar & Eneizan, 2018). In this study net profit margin and return on asset will be used as a measure for financial performance.

2.2 Theoretical Review

2.2.1 Agency Theory

The proponents of the agency theory are Jensen and Meckling in 1976. This theory involves the principal (shareholder) and the agent (management). As opined by Jensen and Meckling (1976), an agency relationship occurs when the principal delivers decision-making authority to an agent to perform some services on the behalf of the principal. Shareholders (and debt holders) act as principals in seeking to obtain maximum utility from the actions of management (who serve as the agents). However, both parties in the relationship are utility maximises and it is reasonable to believe that the managers will not always act in the best interests of the shareholders but will pursue self-interest creating the agency problem. As a result of having conflicting aspirations, both shareholders and managers incur monitoring and bonding costs respectively, known as agency costs. This theory was corroborated by various researchers (Darussamin et al., 2018, Abata & Migiro 2016; Alotaibi, 2014, Walid & Ameur, 2013). This theory is relevant to this study because it highlighted the issue of agency cost and how best it can be address for enhanced financial performance.

2.3 Empirical Review

Wasike (2019) examined the impact of accounts receivable on Nzoia Water Services Company's financial performance. Secondary data were obtained from Kenya national audit office and Nzoia Water Services Company published financial statements for a period of 2012 to 2016. The study employed explanatory research design and data collected were analysed using regression and correlation analysis. The results showed that NZOWASCO, financial performance variable Return on Equity (ROE) was significantly affected with average collection period with negative correlation-0.232 and positive correlation on accounts receivable turnover ratio of 0.401 and Size of the region with positive correlation of 0.911. The study recommended that organization should reduce average collection period, accounts receivable turnover in order to improve their financial performance.

Cheptum (2019) examined the effect of credit collection practices on financial performance of manufacturing firms in Kenya. Descriptive and causal research designs was adopted for the study. The accessible population for the study was 558 registered manufacturing firms from which a sample size of 233 manufacturing firms was arrived at using Yamane's formula. Both descriptive and inferential statistics were utilized in data analysis. Multivariate analysis was also carried using the multiple regression analysis. The study revealed that the credit collection practices have a significant positive effect on the financial performance of the manufacturing firms.

Otieno et al. (2016) examined the relationship between debtor's risk management and financial performance of microfinance banks in Kenya. The population comprised of 12 licensed microfinance banks. Pearson's correlation coefficient was used in data analysis. The results of the study revealed that debtors risk management has a negative effect on return on assets.

Kevin and Omagwa (2017) examined the effect of debtor's management on the financial performance of selected microfinance institutions (MFIs) at Nairobi County in Kenya. Primary data was collected by the aid of self-administered questionnaires and analysed using multiple regression analysis. Both descriptive statistics and inferential statistics were determined. The nine licensed MFIs in Nairobi City, Kenya by the CBK as at 31st December 2014 were the target population of the Study. The study revealed that debt collection policy, legal framework and internal control systems are statistically significant in influencing financial performance of selected MFIs at Nairobi City in Kenya. The study further established client appraisal had no statistically significant effect on financial performance of MFIs at Nairobi city in Kenya. The study found out that internal control systems had a significant effect on financial performance of MFIs in Nairobi city Kenya.

Dan (2020) examines the effect of account receivable period on Corporate Performance of quoted manufacturing firms in Nigeria for the period of 2010 to 2019. Secondary data were extracted from published financial reports of the sampled companies and ordinary least square (OLS) regression technique was used as econometric tool employed in testing the hypotheses. the study revealed that there is a positive effect between account receivable period and return on asset of listed manufacturing firms in Nigeria.

Dirie and Ayuma (2018) examined the effect of accounts receivables management on financial performance in small and medium firms in Mogadishu-Somalia. Survey research design comprising of quantitative for data collection approach was adopted for this study. The target populations had 102 SMEs from three sectors. The study applied both probability and non-

probability sampling procedures to obtained a sample of 81 SMEs required for the study based on Slovene formula. Inferential statistics such as Pearson correlation coefficient and coefficient correlation were used to analyse quantitative data and descriptive statistics are employed for variables of the study. The study revealed a strong negative and highly significant correlation between debt management and financial performance.

Iyekoroghe (2020) examined the impact of credit management of the financial performance of quoted manufacturing firms in Nigeria for the period of five years; from 2015 – 2019 and the basis of the study is to determine if credit management, credit policy, credit granting policy, have impact on financial performance of manufacturing firm. Measured by Return on Asset (ROA) and Return on Equity (ROE), the data utilized, which are secondary data in nature. The data collected was tabulated and analysed using the statistical package for the social science software package (SPSS) 21 these includes mean and standard deviation, descriptive statistic was used to analyze the data. The finding revealed that the measure of financial performance of manufacturing companies ROA and ROE showed that they are affected negatively by the measure of credit management.

Wafula et al. (2019) examined the effect of the average collection period and financial performance of Nzoia water services company. Secondary data spanning from 2012 to 2016 from Kenya national audit office and Nzoia Water Services Company published financial statements were used. The study employed explanatory research design and data was collected from secondary data and analysed using regression and correlation analysis and found the relationship between financial performance. From the findings the mean average collection period was 309.90 days, accounts receivable turnover had a mean of 1.1980, size of the region (7.5870). The results showed that NZOWASCO, financial performance variable Return on Equity (ROE) was significantly affected with average collection period with negative correlation-0.232. The study recommended that the organization reduce average collection period in order to improve their financial performance of the organizations.

Waweru (2011) carried out a study on the relationship between receivables management and the value of companies quoted at the NSE. The study used secondary data obtained from annual reports and audited financial statements of companies listed on the NSE. A sample of 22 companies listed on the NSE for a period of seven years from 2003 to 2009 was studied. The 27 average stock prices were used to measure the value of the firm. The regression models indicated that there was some relationship between receivables management and the firm's value while the result of the Pearson correlation indicated a negative relationship between average cash collection period, inventory turnover in days, cash conversion cycle and the value of the firm.

Manyo et al (2013) investigated the effects of the number of days accounts receivable on the return on assets of some selected Nigerian firms between 2000 and 2009 by use of cross sectional and regression analysis. It was found that the days accounts receivable had a negative relationship with the profitability which was measured by the return on assets. The conclusion was that profitability increased with decrease in days accounts receivable.

3. MATERIAL AND METHOD

The research design adopted for this study was the ex post facto research design. The population of this study comprised of seven (7) listed pharmaceutical companies on the Nigeria Exchange Group in 2023. The entire seven (7) listed pharmaceutical companies was chosen as the sample size using the census approach. Data collection for this study was the financial report of selected listed pharmaceutical companies as obtained from the Nigerian Exchange Group for the period of 2015-2019. The data collected was analysed using the Pearson correlation coefficient and multiple regression computed with the aid of Stata12 software.

$FP = f(ACP + DET + it)$ ………………………………. (3.1)

Therefore, the model appears thus;

$NPM_{it} = \beta_0 + \beta_1 ACP_{it} + \beta_2 DET_{it} + \beta_3 FZE_{it} + \varepsilon_{it}$ ……. (3.2)

NPM=	Net profit Margin
FP=	Financial Performance
ACP=	Average Collection Period
DET =	Debtor Turnover
FZE=	Firm Size
it =	Regression Constant
β_0, μ_0, Z_0, a_0 =	Regression Coefficient
ε =	Stochastic term

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
acp	34	309.4118	247.6972	98	1250
det	34	1.764706	.9865404	0	4
npm	34	-18.32	42.61028	-137.55	44.49
fze	34	15.47059	1.30814	13	17

Source: Output from STATA version 12

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho_1: Average collection period does not have any significant influence on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group.

Table 2: Regression on the effect of average collection period on net profit margin

Source	SS	df	MS			
				Number of obs =	34	
				F(3, 30) =	26.44	
Model	43472.7725	3	14490.9242	Prob > F =	0.0000	
Residual	16443.204	30	548.1068	R-squared =	0.7256	
				Adj R-squared =	0.6981	
Total	59915.9765	33	1815.63565	Root MSE =	23.412	

npm	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
acp	-.0846497	.030535	-2.77	0.009	-.1470106	-.0222888
det	4.000591	6.566668	0.61	0.547	-9.410333	17.41152
fze	13.43768	3.970456	3.38	0.002	5.32893	21.54644
_cons	-207.0771	73.31197	-2.82	0.008	-356.8001	-57.3541

Source: Output from STATA version 12

Table 2 above shows the regression result on average collection period on net profit margin. The F statistics and its probability shows that the model is perfectly fit at $F_{(3, 30)} = 26.44$, Prob>F = 0.0000 and the independent variables in the model explained 73% of the variation in net profit margin. Also, the table revealed the existence of a negative but significant influence on average collection period on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group (p-value= 0.009). It means that a 1% increase in average collection period will bring about a 0.085% decrease in net profit margin all other variables held constant. Since the p-value of the independent variable is less than 0.05, we therefore reject the null hypothesis and concluded that "Average collection period have a significant influence on net profit margin of listed pharmaceutical companies in on the Nigerian Exchange Group.

4.2.2 Hypothesis Two

Ho_2: Debtor turnover does not have any significant influence on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group.

Table 3: Regression on the effect of debtor turnover on net profit margin

Source	SS	df	MS			
Model	43472.7725	3	14490.9242			
Residual	16443.204	30	548.1068			
Total	59915.9765	33	1815.63565			

Number of obs = 34
F(3, 30) = 26.44
Prob > F = 0.0000
R-squared = 0.7256
Adj R-squared = 0.6981
Root MSE = 23.412

npm	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
acp	-.0846497	.030535	-2.77	0.009	-.1470106	-.0222888
det	4.000591	6.566668	0.61	0.547	-9.410333	17.41152
fze	13.43768	3.970456	3.38	0.002	5.32893	21.54644
_cons	-207.0771	73.31197	-2.82	0.008	-356.8001	-57.3541

Source: Output from STATA version 12

Table 3 above shows the regression result on debtor turnover on net profit margin. The F statistics and its probability shows that the model is perfectly fit at F(3, 30) = 26.44, Prob>F = 0.0000 and the independent variables in the model explained 73% of the variation in net profit margin. Also, the table revealed the existence of a positive but insignificant influence of debtor turnover on net profit margin of listed pharmaceutical companies on the Nigerian Exchange Group (p-value= 0.547). It means that a 1% increase in debtor turnover will bring about a 4.0% increase in net profit margin all other variables held constant. Since the p-value of the independent variable is greater than 0.05, we therefore accept the null hypothesis and concluded that "Debtor turnover does not have any significant inluence on net profit margin of listed pharmaceutical companies in on the Nigerian Exchange Group.

CONCLUSION AND RECOMMENDATIONS

The study explored the effect of debtors' management on financial performance of listed pharmaceutical companies in Nigeria. The study concluded that average collection period has a significant effect on net profit margin whereas debtor turnover does not have any significant effect on net profit margin of listed pharmaceutical companies in on the Nigerian Exchange Group. The study therefore, makes the following recommendations;

1. Pharmaceutical companies should reduce average collection period in order to improve their financial performance.
2. Pharmaceutical companies should maintain their debtor turnover to have a good net profit margin.

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EFFECT OF CASH FLOWS MANAGEMENT ON FINANCIAL PERFORMANCE OF LISTED MANUFACTURING COMPANIES IN NIGERIA

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ABSTRACT:

This study examined the effect of cash flow management on financial performance of listed manufacturing firms in Nigeria for a period of ten (10) years covering from 2013-2022. There is lack of consensus among scholars and practitioners about the relationship between cash flows management on financial performance. Panel data were used in this study, which were obtained from the annual reports and accounts of twenty (21) sampled listed manufacturing firms for the period 2013-2022. Ex-Post Facto research design was employed. Inferential statistics using Pearson correlation coefficient, Multicollinearity test, Panel Least Square (PLS) regression analysis and Hausman test were applied to test the hypotheses of the study. The results revealed that abnormal cash flow has a significant and positive effect on cash value added (β_1=0.242867; p-value = 0.0000); abnormal production cost has a significant and positive effect on cash value added (β_2=0.043125; p-value = 0.0000); of listed manufacturing firms in Nigeria at 5% level of significance respectively. In conclusion, the study found that manipulated cash flows and cost of sales has a significant effect on financial performance of listed manufacturing firms at 5% level of significance. The study recommended amongst others that since cash flows and cost of sales appears to be successful in persuading shareholders to assign higher value to firms with more positive accruals, firms should discretionally utilize them to improve and sustain performance.

1. INTRODUCTION

Cash flow management simply implies planning and controlling the cash inflows and outflows of a business, it involves analyzing and monitoring cash flow (Ruparelia, 2023), forecasting future cash flows and taking action to ensure that that business has sufficient cash flow to meet its needs. Departure from normal operational practices, motivated by managers desire to mislead at least some stake holders into believing certain financial reporting goals have been met in the normal

course of operations. This is an act of real earnings management. Real earning management includes but not limited to, over production designed to decrease the cost of goods and cutting of research and development to boost current period earning. Manipulated cash flows and cost of sales disguises the true performance of the firm and weakens the usefulness of accounting members as an evaluation and monitoring tools, for example Roychowdhurry (2006) documents that opportunistic use of aggressive price discount to increase sales volumes heightens customers expectation of discount in future periods as well and, eventually detrimental to long term cash flow. As a result manipulating cash flows and cost of sales increases information risk and reduces the quality of the overall information environment and thus results to significant negative consequences.

The paper ascertains the effect of manipulated cash flows and cost of sales on financial performance of listed manufacturing firms in Nigeria over the period 2013 to 2022. Real earning management has been observed in a variety of issuances of equity such as initial public offerings (IPO) and seasoned equity offering (SEC). Many scholars have contributed to the literature of cash flows /earning manipulations in terms of its relationship to a firm's performance in the year following the offering. Some boost their cash flows upwards around the time of listing events so as to get listed thereby misleading their investors. However manufacturing Company performance is a complex concept. Firm performance literatures offers two stands related to performance measures; Market performance and Accounting performance. This study will explore cash value added in measuring the financial performances. There is lack of consensus among scholars and practitioners about the relationship between manipulated cash flows and cost of sales on listed manufacturing firms. Some argue that it is beneficial for financial performance, while others argue that it is detrimental. There is a need for further research due to this conflicting perspectives.

1.1 Objectives of the Study

The main objective of this study is to ascertain the effect of cash flows management on financial performance of listed manufacturing firm. The specific objectives are:

1. to determine the effect of abnormal cash flow on cash value added of listed manufacturing firms in Nigeria.
2. to examine the effect of production cost on cash value added of the listed manufacturing firms in Nigeriaevaluate the effect of employees abnormal benefit on cash value added of listed manufacturing firms in Nigeria

1.2 Research Hypotheses

The following research hypotheses were formulated:

Ho₁: Abnormal cash flow has no significant effect on cash value added of listed manufacturing firms in Nigeria.

Ho₂: Abnormal production cost has no significant effect on cash value added of a listed manufacturing firm in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Cash flow management

Cash flow management is the process of planning and controlling the cash inflows and outflows of a business. It involves analyzing and monitoring cash flows, forecasting future cash flows and taking actions to ensure that the business has sufficient cash flow to meet its needs. There are a numberof techniques and tools that can be used for cash flow management, including cash statements, cash flows budgets and working capital management. The goal of cash flow management is to ensure that the business has enough cash on hand to cover its operating expenses and meets its financial obligations by effectively managing cash

2.1.2 Abnormal cash flow

Abnormal cash flow refers to a situation in which a company's cash flow deviates from its historical or expected trends. In other words it's when a company's cash flow is usually high or low compared to what is expected. There are several factors that can cause abnormal cash flow including changes in the economy, changes in customers demand, or changes in company's operations. (Matsuura, 2008; Zang, 2012). Operating cash flow is used to determine whether the operation of the company is sufficient to repay short-term debt and to pay the costs related to the operation of the company. Operating cash flow shows cash receipts and expenditures of the company's operations (Güleç & Bektaş, 2019). Management boosts sales by giving discounts and credit term payment for goods sold, which will improve on sales, as well as profits generated by the company, but will affect the cash flow statement of operational activities (Brown, 2020). The analysts' propensity to produce cash flows forecast increases with the magnitude of accruals, heterogeneity of accounting method, earnings volatility, capital intensity, and financial distress. Analysts are more likely to issue cash flow forecast in countries where investor protection is poor and earnings are of a lower quality and analysts from bigger brokerage houses, who have less accurate prior earnings forecast, are more likely to provide cash flow forecast. (Defond & Hung, 2007). The cash flow of operational activities of the company will be lower than if the company

is selling normally. The company receives this small cash because of an increase in accounts receivable due to the company selling on credit and the discounted price that requires the company to cut the price of the sale (Li, 2019).

2.1.2. Abnormal Production Cost.

Abnormal production cost is refers to a situation in which a company's production costs deviate from their historical or expected trends   (Olaniyi & Abubakar, 2018). It could be due to changes in the cost of raw materials, changes in labor costs, or even disruption in the supply chain.in other words, it is when a company's production costs areunusully high or low compared to what is expected. (Sun & Lan, 2014; Olaniyi & Abubakar, 2018). In managing the production costs, the firm increases the volume of production more than normal levels. The activity causes production costs to increase but the fixed cost per item reduces because it is spread to the larger volume of productions. Consequently, the COGS per unit decreases and profit margin per sale item increases (Hsueh-Li, Liang, Chang & Hsu, 2021). However, overproduction will lead to higher total production costs than normal production costs for a given level of sales, by so doing, firms succeed in improving their profitability margins but at the same time incur production costs to be abnormally high. Healthy firms have less intention to manipulate earnings compared to unhealthy firms. Since it is argued that firms will engage in financial statement fraud to achieve targeted earnings, financial statement fraud firms are likely to report higher production cost overall (Elrazaz, Elmassri & Ahmed, 2021).

2.1.3 Financial Performance

The financial performance of publicly traded corporations on the capital market is important; it is also seen as a platform for attracting capital and lowering a company's cost of capital. A corporation with a very high-pitched financial performance will, in reality, gain a favorable reputation among Investors. At the same time, the capital market, managers, and investors rely on audited financial reports to make decisions about a company's business efficiency. As a result, better financial reporting will have a favorable impact on the company's financial performance. The term financial performance is described as multifaceted (Santos & Brito, 2012). Many scholars have used a variety of ways to quantify financial performance. The financial performance of the organization will be examined in this study based on its profitability. Profitability is always calculated as the ratio of pre-tax income to shareholder equity (Chen & Chen, 2011). Profitability is quantified in a variety of ways, including Return on Assets (ROA), Price Earnings Ratio (PER), and Return on Equity (ROE). The key metric of financial performance used in this study is cash value added which is a contemporary accounting measure

Financial Performance is a measure of how well a firm can use assets from its primary mode of business to generate revenues (Abakasanga, Ogbonna, & Umobong, 2019). It is used to describe thestate of affairs of a firm. The term is also used as a general measure of a firm's overall financial health over a given period (Abakasanga, Ogbonna, & Umobong, 2019).According to Abraham, Zhang, Joseph, Agyemang and Ofori (2021) financial performance are measured in various ways, such as shareholders' wealth maximization, profitability, and components of financial statements including sales, assets, liability and equity.

2.1.4 Cash Value Added

Value added is the extra value created over and above the original value of something. It can apply to products, services, companies, management, and other areas of business. In other words, it is an enhancement made by a company/individual to a product or service before offering it for sale to the end customer (Kvilhaug, 2022). Value can be added to a product, service, process, or an entire business. Value can be added by providing better or extra services in the form of after-sales services and better customer support. Value can also be added by improving a product in some way, or by including extras with the product. For example, a retail seller of computers can add value by including software or computer accessories with the basic product – the computer. Companies with strong branding can add value to their products or services simply by using the company's logo to sell a product (Leigh, 2023). Cash value added is a measure of company performance that looks at how much money a company generates through its operations (Bloomenthal, 2022). Cash value added (CVA) is a measure of a company's ability to generate cash flow above and beyond the required return to its investors. A high CVA indicates a company's ability to produce liquid profits from one financial period to another (Richards, 2023).

CVA = gross cash flow - depreciation - capital charge

2.2 Theoretical Review

2.2.1 Signaling Theory

This theory came to being in the 1973 based on the contributions of Arrow and Spencer. The theory is based on the signals that a firm sends to its users. According to Signaling theory, companies or individuals use signals to communicate their qualities to others, these signals can take the form of actions, words, or other forms of communication Signaling theory has been used to explain a variety of phenominom, such as why companies engage in costly advertising or why job applicants spend time acquiring credentials. It tends to imply that the most profitable companies provide more and better financial information to its users in order to acquire more

capital. Through financial reports, firms are able to send signals to different stakeholders about the financial health, performance and its future prospects. Stakeholders use the information presented in the financial reports to make decisions regarding the returns on their investment. Since financial reporting carries such an enormous weigh with regards to the investment decisions of the shareholders, managers may then make use of this situation to manipulate their cash flows and production cost in order to get the investors to act in a preferred manner (Bjurman&Weihagen, 2013). It is simply put that when a firm reports lower profitability and performance, it sends negative signals to prospective investors and if they report higher profitability and performance, they send positive signals that attract prospective investors; managers therefore may find it necessary to engage in earnings management due to the signaling effect that financial reports have on the financial performance of a firm.

2.3 Empirical Review

Manipulation is not new to the research world and so a lot of research has been carried out on it. The review of other works done on this subject matter includes: Ghozali, Harto and Yuyutta (2018) investigated the free cash flow, investment inefficiency and earnings management, secondary data was used and the result shows that free cash flow is positively related to earnings management

Chakroun and Amar (2021) investigated the impacts which Real earnings management has on financial performance and also used corporate social responsibility to moderate the effects of the variables. Data were obtained from quoted French firms. Analysis of data was done using Feasible Generalized Least Square Regression method. Results showed the independent variable significantly and negatively affects the dependent variable.

Alrjoub, Almomani, Al-Hosban and Allahham (2021) assessed the relationship between financial performance of Jordanian financial firms and their earnings management practices behaviors. Finding revealed a statistically significant correlation between financial performance and earnings management practice.

Nelwin, Mambu and Tansuria (2021) studied "audit reputation, financial performance and Real earnings management" Nineteen quoted Indonesian manufacturing firms were sampled and analysis of data was done using structural equation modeling. The outcome showed that the mediating variable does not have any mediation on the effects of the independent variable on the dependent variable.

Phylice, Robert, and Ondiek (2021) examined the Influence of Real Earnings management on financial performance of Agricultural Firms listed in Nairobi Securities Exchange, Kenya. The

study Adopted descriptive survey research design. The sample size comprises of all the 6 companies listed inNairobi Securities Exchange as at July 2014 to July 2019. Data collected was analyzed using descriptive statistics, correlation and multiple regression. The study found out that Real earnings management has a positive significant effect on financial performance. Real Earnings management has a positive relationship with the Return on Investment (ROI) of the firms under study. The study recommended that agricultural firms listed at the NSE should put more emphasis on Real Earnings management so as to improve the financial performance of agricultural firms listed on NSE and also that Performance reviews on the senior management should also focus on earnings management for improved financial performance. Meryana and Erna Setiany (2021) indicate that the financial struggles of robust companies are influenced by their free cash flows and interest coverage ratio, while investment and earnings management do not have a considerable impact on their financial difficulties.

Akintoye et al. (2021) investigated how sustainability reporting affected abnormal operating cash flows in multinational companies operating in Sub-Saharan Africa. The study focused on five multinational companies from each of the ten countries, covering the period between 2010 and 2019. The results showed that sustainability disclosure had a significant impact on abnormal operating cash flows in these corporations, suggesting that it also influenced their earnings management. The authors suggested that management of international companies in Sub-Saharan Africa should strictly adhere to sustainability reporting practices to improve their earnings quality and reduce the need for earnings management practices.

Alrjoub, Almomani, Al-Hosban and Allahham (2021) assessed the relationship between financial performance of Jordanian financial firms and their earnings management practices behaviours. Finding revealed a statistically significant correlation between financial performance and earnings management practice.. Nelwin, Mambu and Tansuria (2021) studied "audit reputation, financial performance and earnings management" Nineteen quoted Indonesian manufacturing firms were sampled and analysis of data was done using structural equation modeling. The outcome showed that the mediating variable does not have any mediation on the effects of the independent variable on the dependent variable.

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a positive relationship with the Return on Investment (ROI) of the firms under study. The study recommended that agricultural firms listed at the NSE should put more emphasis on Earnings management so as to improve the financial performance of agricultural firms listed on NSE and also that Performance reviews on the senior management should also focus on earnings management for improved financial performance.

3. MATERIAL AND METHOD

The research work employed *ex-post facto* research design using secondary data. It covered the period of ten (10) years. The justification using this type of methodology is that the statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible, impractical, or unethical (Kurawa& Ahmed, 2020). The population is 59 listed manufacturing companies in Nigeria, Sample size is 21 which was selected using purposive Sampling techniques. Panel least square regression analysis was used to test the hypothesis. The independent variables are: abnormal cash flow and abnormal production cost while cash value added is the variable for measuring the dependent variable.

Table 1 Operationalization of Variables

Variable Type	Indicators	Variable Symbols	Definition and Measurement
Independent Variable *Cash Flow Management*	Abnormal Cash Flow Operation	ACFO	$(1/\log.A_{t-1})+ (S_t/A_{t-1}) + (\Delta S_t/A_{t-1})$
	Abnormal Production Costs	APC	$(1/\text{Log}. A_{t-1}) + (S_t/A_{t-1}) + (\Delta S_t/A_{t-1}) + (\Delta S_{t-1}/A_{t-1})$
Dependent Variable *Financial Performance*	Cash Value Added	CVA	Gross Cash Flow - Depreciation - Capital Charge

Where:

A_{t-1} = total assets at end of year t-1

S_t = Sales of the company in the end of t

ΔS_t = Changes in the company's sales in year t compared to sales at the end of the year t-1

ΔS_{t-1} = change the company's sales in year t-1 as compared with sales at the end of year t-2

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 2: Effect of abnormal ACF and APC **on CVA**

Dependent Variable: CVA

Method: Panel Least Squares

Date: 08/18/23   Time: 16:26

Sample: 2013 2022

Periods included: 10

Cross-sections included: 21

Total panel (balanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.020584	0.006648	3.096200	0.0022
ACFO	0.277670	0.029759	9.330527	0.0000
APC	0.068224	0.012475	5.468803	0.0000
R-squared	0.618604	Mean dependent var		0.082000
Adjusted R-squared	0.608681	S.D. dependent var		0.031951
S.E. of regression	0.026566	Akaike info criterion		-4.399521
Sum squared resid	0.145383	Schwarz criterion		-4.335767
Log likelihood	465.9497	Hannan-Quinn criter.		-4.373748
F-statistic	32.10686	Durbin-Watson stat		1.821902
Prob(F-statistic)	0.000000			

Source: E-Views 10 Regression Output, 2023

The following regression equation was obtained from table 4.2:

$$CVA = 0.020584 + 0.277670ACFO + 0.068224APC + 0.785603ADE$$

Using the above model, it is possible to determine the relationship between abnormal cash flow/abnormal production cost and Financial Performance of listed manufacturing firms. Holding all other factors constant, an increase in one unit of the independent variables; ACFO and APC results into a corresponding increase in one unit of CVA to the tone of 27.77% and 6.82% respectively. This means that a positive relationship exists between ACFO, APC, and CVA. The slope coefficient shows that that the probability value; $P(x_1=0.0000<0.05; x_2=0.0000<0.05;)$ is less than the critical P-value of 0.05. This implies that ACFO and APC have a positive significant relationship with CVA. Results in table 4.2 indicate that the adjusted R-squared for the model is

0.608681, meaning that the regression model used for this study is a good predictor. The independent variables explained 60.87% of the variation in CVA of listed manufacturing firms. Only 39.13% of variation in CVA of listed manufacturing companies is not explained by the regression model. The Durbin-Watson value of 1.821902 indicates the absence of serial correlation in the model. From the test of coefficients result in table 4.2, the probability value of the F-statistics = 0.000000 implies that the regression model is significant in predicting the relationship between the independent variables (ACFO and APC) and the dependent variable (CVA). The degree of significance between the variables is less than $\alpha=0.05$, therefore, the result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 5% significance level.

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho$_1$: Abnormal cash flow has no significant effect on cash value added of listed manufacturing firms in Nigeria.

Table 2 above reveals that while the outcome of the t-statistics (9.330527) indicated a positive and strong effect of abnormal cash flow on financial performance of the sampled manufacturing firms, herein proxied with cash added value, the p-value indicator of 0.0000 further lend credence to the earlier observation made that such effect is statistically significant.

4.2.1.1 Decision

Since the p-value obtained (0.0000) is less than 0.05, the alternate hypothesis is accepted, and this implies that abnormal cash flow has a significant and positive effect on cash value added of listed manufacturing firms in Nigeria at 5% level of significance (t-statistics = 9.330527; p-value = 0.0000).

4.2.2 Hypothesis Two

Ho$_2$: Abnormal production cost has no significant effect on cash value added of a listed manufacturing firm in Nigeria.

Table 2 above reveals that while the outcome of the t-statistics (5.468803) indicated a positive and strong effect of abnormal production cost on the financial performance of the sampled manufacturing firms, herein proxied with cash added value, the p-value indicator of 0.0000 further lend credence to the earlier observation made that such effect is statistically significant.

4.2.2.1 Decision

Since the p-value obtained (0.0000) is less than 0.05, the alternate hypothesis is accepted, and this implies that abnormal production cost has a significant and positive effect on cash value added of listed manufacturing firms in Nigeria at 5% level of significance (t-statistics = 5.468803; p-value = 0.0000).

CONCLUSION AND RECOMMENDATIONS

In conclusion, the study found that abnormal cash flow and abnormal production cost has a significant and positive effect on financial performance of listed manufacturing firms at 5% level of significance. Based on the findings of this study, the following recommendations were made:

1. Firms should discretionally utilize abnormal cash flow to sustain their cash value added.
2. Firms' management should decrease the cost of goods sold and reduce the research and development investment to boost the cash value added for the period.

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MODERATING EFFECT OF ABNORMAL AUDIT FEES ON THE RELATIONSHIP BETWEEN AUDIT DELAY AND THE QUALITY OF FINANCIAL REPORTING: A STUDY OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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ABSTRACT:

The study investigated the moderating effect of abnormal audit fees on the relationship between audit delay and the quality of financial reporting in firms. The specific objective of the study were to determine the effect of audit report time lag and abnormal audit fees on accruals quality of listed industrial goods in Nigeria. The study also examined whether abnormal audit fees affect the relationship between audit report time lag and accruals quality of listed industrial goods in Nigeria. The study population was made up of thirteen (13) industrial goods that were listed on the Nigerian Exchange group. Purposive sampling method was used to select the seven (7) firms that made up the sample participants. Secondary data were obtained from the annual financial reports of the selected industrial goods for a 10-year period spanning 2012-2021, using 2012 as base year for accrual quality estimation. Moderated Ordinary Least Square regression analysis was utilized in testing all the hypotheses of the study. The findings revealed the following: audit report time lag has no significant effect on the accruals quality of listed industrial goods in Nigeria (p-value = 0.7970); abnormal audit fee has no significant effect on the accruals quality of listed industrial goods in Nigeria (p-value = 0.8174); there is no moderating effect of abnormal audit fees on the relationship between audit report time lag and accruals quality of listed industrial goods in Nigeria (p-value = 0.4970). In conclusion, abnormal audit fees do not have the potential to indicate higher audit risks, which can prompt the external auditor to pay closer attention to details, ultimately leading to improved financial reporting quality. It was recommended that companies should strive to maintain efficient audit processes and timely submission of financial statements to external auditors to ensure that any potential issues can be identified and resolved promptly.
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1. INTRODUCTION

Research interest in financial reporting quality focuses on understanding the factors that contribute to the accuracy, completeness, and timeliness of financial information provided by companies to their stakeholders. This research typically involves studying the impact of various external and internal factors on financial reporting quality, such as auditing and assurance, whereby the researchers study the role of auditing, assurance or aspects of auditing in improving financial reporting quality and the effectiveness of different audit and assurance methods (Musa, 2020; Mesbah & Ramadan, 2022). Financial reporting quality refers to the degree to which a company's financial statements provide accurate and reliable information about the company's financial performance and position (Mwangi, 2018). High quality financial reporting is important for investors, creditors, and other stakeholders, as it helps them to make informed decisions about the company (Oyebamiji, 2022).

High-quality financial reports provide the data necessary for management to make informed business decisions and plan for the future. Lending institutions and investors used corporate reports to assess a company's creditworthiness and ability to repay debt. However, poor quality financial reports can have serious implications for companies and their stakeholders. It provides misleading information to stakeholders, leading to inappropriate decisions about investments or business dealings (Mesbah & Ramadan, 2022). More also, when the financial reporting quality is poor, it damages the firm's credibility, leading to loss of trust from investors, customers, and other stakeholders, hence the need for the timely completion of audit work which will assure relevant stakeholders of the quality of the financial reports provided by the firm. An audit is an independent examination of a company's financial statements and records, performed by a qualified professional accountant or accounting firm. The essence of this is to ensure that a company's financial statements comply with applicable reporting standards and also to provide assurance to stakeholders that a company's financial statements are accurate and reliable, and that the company is adhering to sound financial practices. When this process of audit is delayed, it can negatively affect the quality of financial reporting. A delay in the audit process can result in financial information that is not as current or accurate as it should be (Gacheru, 2018). This can lead to financial statements that do not accurately reflect the true and fair view of the company's financial position. Additionally, audit delays can also lead to increased uncertainty and risk for investors and other stakeholders who rely on the financial information provided by the company (Utomo, 2017). For the purpose of situating this study in the right context, audit delay refers to the time lag between the end of a company's financial year and the completion of an independent audit of its financial statements (Owino, 2017).

Abnormal audit fees, which refer to the fees paid to an auditor that are significantly higher or lower than what is typical for similar companies in the same industry (Matozza, Biscotti, D'Amico & Strologo, 2020), can moderate the relationship between audit delay and financial reporting quality. The relationship between audit delay and financial reporting quality may not always be straightforward, and abnormal audit fees can likely influence the relationship in different ways. First, abnormal audit fees can be an indicator of the quality of the financial reporting. If a company is paying an abnormally high audit fee, it may indicate that the company has a complex financial structure or operates in a complex industry, which can make it more difficult and time-consuming to conduct an independent audit (Egbunike & Asuzu, 2020). In this case, audit delay may not have a negative impact on financial reporting quality, as the increased time and effort spent on the audit may result in more accurate and reliable financial statements.

On the other hand, if a company is paying abnormal low audit fees, it may indicate that the company is not providing the auditor with sufficient information or resources to conduct an independent audit (Ibrahim & Ali, 2021). In this case, audit delay may have a negative impact on financial reporting quality, as the auditor may not be able to obtain all the necessary information or perform sufficient testing to ensure the accuracy of the financial statements (Matozza, Biscotti, D'Amico & Strologo, 2020). Also, abnormal audit fees can also influence the relationship between audit delay and financial reporting quality by affecting the auditor's incentives and motivations. High abnormal audit fees can provide the auditor with an incentive to spend more time and resources on the audit, which can lead to higher quality financial reporting. On the other hand, low abnormal audit fees may not provide the auditor with sufficient incentives to conduct a thorough and high-quality audit, which can lead to lower quality financial reporting (Ibrahim & Ali, 2021). The financial statements not only provides accounting information that are useful to decision-makers in evaluating the company's financial performance and position, but they also disclose firm performance, health and results. Chiefly among the qualities that make for a sound financial reporting is timeliness (Bassey-John, 2022). This requires that the financial statements should be provided in a timely manner, so that stakeholders can make decisions based on current information. High financial reporting quality is important for building trust and confidence in the financial system, and for ensuring that stakeholders have access to accurate and reliable information about the company's financial performance and position (Bett, 2021). Financial reporting has always been considered as the critical determinant for investment decision-making of shareholders and other stakeholders of a firm in considering returns that has been made. The value of quality of financial reports is considered if they could accurately disclose the true economic natures of the firm in forms of relevance, faithful representation, understandability,

comparability, timeliness and verifiability (Muhammad, 2020). When firms pay abnormal audit fees to their auditors, it indicates a variety of things, such as increased risk or complexity associated with the audit, or a sign of a company's financial distress or potential fraud among others (Suryanto, 2016). Generally, audit delay can have significant negative consequences for companies and their stakeholders, and it is important for companies to take steps to minimize the risk of audit delay and ensure the timely completion of their audits. It is against this backdrop that the present study examines how abnormal audit fees moderate the relationship between audit delay and financial reporting quality among listed industrial goods firms in Nigeria.

Audit delays become the other of the day when auditors are not provided with timely access to all necessary information, or if the audit team does not have sufficient resources and expertise to proactively address any issues or concerns that arise during the audit process (Gacheru, 2018). Audit delay tends to have negative consequences for companies and their stakeholders. In some instances, it can lead to financial statements that are not as current or accurate as they could be, increased uncertainty and risk for investors, and difficulties in obtaining financing or making business decisions. Additionally, audit delays can also lead to reputational damage for companies, as well as potential penalties or sanctions from regulatory bodies (Utomo, Kumalasari & Machmuddah, 2017). Particularly, it makes it more difficult for companies to obtain financing, as lenders and investors may be less willing to extend credit without current and accurate financial information. Most stakeholders consider audit delay as a sign of financial mismanagement or lack of transparency, thereby impairing the reputation and corporate image of the firm (Abdillah, Muda, & Abubakar, 2021). Worst of all, time lag in the audit report or delay in the completion of an audit prevents the management from making timely decisions, which can lead to missed opportunities and negative impact on the company's performance. As a consequence, the quality of financial reporting in the firm measured in terms of timeliness and accruals quality will be low. Poor quality financial reporting causes a decline in the company's stock price (Mesbah & Ramadan, 2022), which can lead to a loss of investment. Since abnormal audit fees potentially influences the auditor's incentives and motivations, it also becomes pertinent to assess the moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality.

Past studies such as Suryanto (2016); Oyebamiji (2022); Egbunike and Asuzu (2020); Matozza, Biscotti, D'Amico and Strologo (2020); Ibenre, Olumide, Ngutor, Terzungwe and Suleiman (2020); Ibrahim and Ali (2021) which examined similar problem failed moderate the effect of audit delay on accrual quality as the proxy for financial reporting quality. Hence, this study is carried out to fill up this gap in literature.

1.1 Objectives of the Study

The broad objective of the study is to examine the moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality of firms of listed industrial goods firms in Nigeria. The following are the specific objectives of the study:

1. To determine the effect of audit report time lag on the accruals quality of listed industrial goods firms in Nigeria.

2. To determine the effect of abnormal audit fees on accruals quality of listed industrial goods firms in Nigeria.

3. To find out the moderating effect of abnormal audit fees on the relationship between audit report time lag and accruals quality of listed industrial goods firms in Nigeria.

1.2 Research Hypotheses

The following hypotheses were accordingly formulated in their null forms:

H_{01}:   Audit report time lag has no significant effect on the accruals quality of listed industrial goods firms in Nigeria.

H_{02}:   Abnormal audit fee has no significant effect on the accruals quality of listed industrial goods firms in Nigeria.

H_{03}:   There is no moderating effect of abnormal audit fees on the relationship between audit report time lag and accruals quality of listed industrial goods firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Audit Delay

Audit delay refers to the length of time that elapses between the end of a company's financial year and the completion of its external audit. In other words, it is the time taken by auditors to complete the audit of a company's financial statements (Owino, 2017). Audit delay is an important measure of audit quality, as it reflects the efficiency and effectiveness of the audit process. A shorter audit delay is generally considered a sign of a high-quality audit, while a longer delay may indicate problems with the audit process or financial reporting (Utomo, Kumalasari & Machmuddah, 2017). There are several factors that can contribute to audit delay. One of the most important is the complexity of the company's financial statements. If the company has a large number of subsidiaries, complex financial instruments, or unusual accounting policies, the audit may take longer to complete. In addition, if the company has had significant changes in its business operations or management team, this may also contribute to audit delay (Ohiokha & Idialu, 2017). Another factor that can impact audit delay is the quality of the company's financial reporting. If

the company's financial statements are incomplete or inaccurate, the auditors may need to spend more time verifying the information, which can lead to longer audit delays. Similarly, if the company has a poor internal control environment, the auditors may need to spend more time testing the controls, which can also lead to longer audit delays.

The length of the audit delay can have several consequences for the company and its stakeholders (Egbunike & Asuzu, 2020). For example, a longer audit delay can delay the release of the company's financial statements, which can negatively impact investor confidence and stock prices. In addition, a longer audit delay can also delay the company's ability to secure financing or engage in other business transactions. To reduce audit delay, companies can take several steps to improve their financial reporting and internal controls. For example, they can implement stronger internal controls, ensure that their financial statements are complete and accurate, and provide auditors with timely access to all relevant information. Companies can also engage with auditors early in the audit process to identify potential areas of complexity or concern and work to address them in a timely manner. Thus, audit delay is an important measure of audit quality and can have significant consequences for companies and their stakeholders. While there are several factors that can contribute to longer audit delays, companies can take steps to improve their financial reporting and internal controls and work collaboratively with auditors to complete the audit in a timely manner.

2.1.1.1 Audit Report Time Lag

An audit report time lag is the time taken between the end of a company's financial year and the date when the audit report is issued (Muhammad, 2020). The audit report is a document prepared by an independent auditor that expresses an opinion on the company's financial statements. The time lag between the end of the financial year and the issue of the audit report is an important issue for stakeholders, such as investors, creditors, and regulators, as it impacts the quality and reliability of the financial information presented (Ohiokha & Idialu, 2017). The length of the audit report time lag can vary depending on several factors, such as the complexity of the audit, the size of the company, and the quality of the company's internal controls. In some cases, the audit report time lag can be several months or even years, which can significantly impact the usefulness of the financial information presented.

In contrast, a shorter audit report time lag can increase the reliability of the financial information and enable stakeholders to make better-informed decisions (Egbunike & Asuzu, 2020). The impact of an extended audit report time lag can be significant (Utomo, Kumalasari & Machmuddah, 2017). For example, a company's stock price may fluctuate significantly between the end of the

financial year and the issue of the audit report. This can lead to investor uncertainty and a loss of confidence in the company, which can impact the company's ability to secure funding, attract new investors, or maintain the confidence of existing shareholders. Moreover, a longer audit report time lag can increase the risk of fraud or other financial irregularities going undetected (Gacheru, 2018). This is because a longer time lag increases the likelihood that the financial statements presented are not current, which can lead to inaccuracies, errors, or even intentional misrepresentations going unnoticed by the auditor. This can cause significant financial losses for stakeholders and can also harm the reputation of the company.

2.1.2 Financial Reporting Quality

Financial reporting quality is a critical concept in accounting that refers to the degree to which financial statements accurately reflect a company's financial performance, position, and cash flows (Bett, 2021). High-quality financial reporting is essential for investors and other stakeholders to make informed decisions, while poor quality reporting can lead to costly mistakes, legal action, and loss of reputation. The importance of financial reporting quality cannot be overstated. Accurate and reliable financial information is crucial for stakeholders to assess a company's financial position, performance, and prospects. Investors rely on financial statements to make decisions about buying, holding, or selling shares, while lenders use them to assess creditworthiness and to determine whether to provide financing (Mwangi, 2018). Regulators also use financial statements to monitor compliance and to ensure that companies are following reporting standards and regulations.

The key elements that contribute to financial reporting quality are accuracy, completeness, reliability, relevance, timeliness, and comparability (Bassey-John, 2022). Accuracy refers to the degree to which financial information is free from material errors, while completeness refers to the inclusion of all relevant information in financial statements. Reliability refers to the consistency of financial information over time, while relevance is the ability of financial information to influence the decisions of users. Timeliness refers to the promptness with which financial information is provided, while comparability refers to the ability to compare financial information across companies or periods. Another key element of financial reporting quality is transparency. Transparency refers to the clarity and completeness of financial information. Transparency is critical for users of financial statements to make informed decisions. If a company does not disclose all relevant information, stakeholders may make incorrect decisions based on incomplete or misleading information. A lack of transparency can also erode trust in the company and lead to reputational damage (Musa, 2020).

From the above, financial reporting quality is a critical concept that affects the decisions made by stakeholders in a company. The importance of financial reporting quality cannot be overstated, as it ensures that users of financial statements have accurate, reliable, relevant, and timely information to make informed decisions (Mesbah & Ramadan, 2022). The key elements of financial reporting quality are accuracy, completeness, reliability, relevance, timeliness, and comparability, while transparency is critical to ensure that all relevant information is disclosed. Therefore, companies must ensure that they provide high-quality financial reporting to meet the needs of their stakeholders and maintain their reputation.

2.1.3 Abnormal Audit Fees

Abnormal audit fees refer to fees paid by a company for its external audit that are higher or lower than what would be expected based on the company's size, industry, and complexity (Matozza, Biscotti, D'Amico & Strologo, 2020). Abnormal audit fees can be a red flag for stakeholders and may indicate a number of issues related to financial reporting quality, including poor internal controls, higher risks, and financial irregularities. Abnormal audit fees can occur for a number of reasons. In some cases, they may reflect the complexity of the company's operations or financial reporting requirements, such as the need for audits of subsidiaries or joint ventures. In other cases, they may reflect higher risk factors, such as a history of accounting irregularities, complex financial instruments, or regulatory violations (Egbunike & Asuzu, 2020). Higher-than-expected audit fees can also reflect the need for additional audit procedures or extended work hours, such as in the case of mergers or acquisitions.

Lower-than-expected audit fees can also be a cause for concern. They may suggest that the audit firm is cutting corners or compromising the quality of the audit to meet a lower budget. Low audit fees may also indicate that the company has significant control issues or that the company is exerting pressure on the audit firm to lower the fees (Ibrahim & Ali, 2021). Abnormal audit fees have significant implications for financial reporting quality. Higher-than-expected fees can indicate that the company's internal controls are weak, and there are more inherent risks in its financial reporting (Egbunike & Asuzu, 2020). This can lead to higher levels of financial statement restatements, earnings management, and fraud. On the other hand, lower-than-expected fees may suggest that the auditor is not able to devote enough resources to perform a thorough audit. In such cases, the audit may not be able to detect material misstatements, leading to inaccurate financial statements.

Regulators, investors, and other stakeholders are becoming increasingly concerned about the implications of abnormal audit fees for financial reporting quality. In response, regulators such as

the Securities and Exchange Commission (SEC) require disclosure of abnormal audit fees in companies' financial statements. This requirement is intended to increase transparency and accountability and to provide stakeholders with more information to assess the quality of financial reporting. From the above, abnormal audit fees can be an indication of underlying issues with financial reporting quality (Egbunike & Asuzu, 2020). Higher-than-expected fees may suggest that the company has a higher level of inherent risk, while lower-than-expected fees may indicate inadequate audit procedures. Regulators and stakeholders are increasingly focused on the implications of abnormal audit fees, and companies must take steps to ensure that they provide high-quality financial reporting by choosing a competent audit firm and providing adequate resources for the audit process.

2.1.4 Accrual Quality

Accrual quality is a critical aspect of financial reporting and is a measure of the reliability and accuracy of accruals, which are non-cash accounting entries used to record revenues and expenses (Dechow & Dichev, 2002). High-quality accruals are those that are more likely to reflect the underlying economic activity of the company and less likely to be manipulated for the purpose of financial statement misrepresentation. In contrast, low-quality accruals may be used to artificially inflate earnings or mask underlying financial problems (Doyle, Ge & McVay, 2007). The quality of accruals is influenced by several factors, including accounting policies and estimates, revenue recognition, internal controls, management incentives, and auditor quality (Lewellen & Resutek, 2019). The use of conservative accounting policies and estimates is one way to improve the quality of accruals. Companies that use conservative policies are less likely to overstate earnings or revenue, which can lead to higher-quality accruals. Similarly, conservative revenue recognition policies can also improve accrual quality by reducing the risk of overstatement.

Finally, the quality of the external auditor can also affect accrual quality. A high-quality auditor is more likely to detect errors or fraud in financial reporting, which can improve the reliability of accruals. Additionally, a high-quality auditor is more likely to have the expertise and resources necessary to assess the reasonableness of the company's accounting policies and estimates. Accrual quality is a critical aspect of financial reporting because it affects the reliability of financial statements (Dechow & Dichev, 2002). Reliable financial statements are important for investors, creditors, and other stakeholders who rely on financial statements to make decisions (Doyle, Ge & McVay, 2007). If financial statements are not reliable, stakeholders may make decisions based on inaccurate or incomplete information, which can have significant consequences.

2.1.5 Moderating Role of Abnormal Audit Fees on the Relationship Between Audit Delay and Financial Reporting Quality

Financial reporting quality is a crucial aspect of any organization as it reflects the company's performance and reliability. Financial statements must be accurate and reflect the true financial position of the company. Hence, external audit plays a critical role in ensuring the accuracy and reliability of the financial statements. One aspect of external audit that has been subject to much debate is audit delay. Audit delay refers to the time taken by an external auditor to complete the audit of a company's financial statements (Abdillah, Muda, & Abubakar, 2021). Longer audit delays have been linked to lower financial reporting quality as it increases the likelihood of errors and inaccuracies in the financial statements.

Abnormal audit fees, on the other hand, are fees charged by the external auditor that exceed the normal range of fees for similar-sized companies in the same industry (Matozza, Biscotti, D'Amico & Strologo, 2020). Abnormal audit fees may indicate a higher level of audit risk, suggesting that the external auditor is spending more time and resources to conduct the audit due to the complexity of the company's operations or the risk of financial misstatements (Ibenre, Olumide, Ngutor, Terzungwe & Suleiman, 2020). The moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality refers to how abnormal audit fees can affect the relationship between audit delay and financial reporting quality. In other words, abnormal audit fees can either strengthen or weaken the relationship between audit delay and financial reporting quality.

Abnormal audit fees may weaken the negative relationship between audit delay and financial reporting quality. Companies that pay abnormal audit fees may receive better quality audits, which could mitigate the negative effects of longer audit delays on financial reporting quality. On the other hand, abnormal audit fees is likely to strengthen the negative relationship between audit delay and financial reporting quality. Abnormal audit fees can serve as a signal of higher audit risk, which can increase the external auditor's attention to detail and ultimately lead to higher financial reporting quality.

Generally, the moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality is a complex issue that has been subject to much debate in the accounting and auditing literature. Different studies have found conflicting results, which suggest that the relationship may vary depending on several factors, including the industry, the size of the company, and the nature of the audit engagement. It is crucial to understand the relationship between audit delay, abnormal audit fees, and financial reporting quality to ensure that external audit is providing the necessary assurance to stakeholders.

2.2 Theoretical Review

2.2.1 Agency Theory

The agency theory is a fundamental concept in corporate governance that helps to understand the relationship between principals (e.g., shareholders) and agents (e.g., managers). The theory originated from the works of economists Jensen and Meckling in the 1970s. They developed the agency theory to explain how the interests of principals and agents can conflict, leading to agency costs. The agency theory suggests that there is a potential conflict of interests between the principals and agents, who act on behalf of the principals. The theory postulates that the agents (managers) are likely to act in their own self-interest, rather than in the best interests of the principals (shareholders) (Gacheru, 2018). As such, managers may make decisions that benefit themselves, but not necessarily the shareholders. To address this problem, the agency theory proposes that the principal and agent should agree on a set of contracts or agreements that align the interests of both parties (Bassey-John, 2022). These contracts should include specific incentives and punishments for agents to ensure they act in the best interest of the principal. The principal should monitor the agent's performance to ensure that they comply with the agreed-upon contracts (Owino, 2017).

One application of the agency theory is in the area of financial reporting quality. The quality of financial reporting is an essential aspect of corporate governance. It provides the shareholders with the necessary information to make informed investment decisions (Bett, 2021). However, managers may have incentives to manipulate financial reports to achieve their own goals, leading to lower financial reporting quality. Audit delay is a measure of how long it takes to complete an audit after the end of the fiscal year. High audit delay is often associated with lower financial reporting quality (Musa, 2020). This is because managers may have more time to manipulate financial reports before they are audited. The moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality is an essential application of the agency theory. Abnormal audit fees are additional fees paid to auditors for extra work, such as auditing complex transactions. The theory suggests that the presence of abnormal audit fees reduces the incentive for managers to manipulate financial reports. This is because auditors will be more vigilant in their work, and the cost of manipulation will be higher.

Thus, the agency theory is a fundamental concept in corporate governance that explains the potential conflict of interests between principals and agents (Mwangi, 2018). The theory proposes that contracts and monitoring can help align the interests of both parties. The application of the theory to the moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality shows how the theory can be used to improve corporate governance.

By reducing the incentive for managers to manipulate financial reports, abnormal audit fees can help increase financial reporting quality and provide shareholders with more accurate information.

2.3 Empirical Review

Oyebamiji (2022) determined the relationship between audit tenure and financial reporting quality of listed Nigerian deposit money banks (2008-2018). Data for audit tenure, audit committee independence, board size, financial condition and financial reporting quality were sourced from the audited financial statements of the selected DMBs and the Nigerian Stock Exchange Factbook over a period of 11 years (2008-2018). Data collected were analysed using Random Effect method. The result revealed that a significant relationship exists between audit tenure and financial reporting quality.

Ibrahim and Ali (2021) determined the impact of audit fees on audit quality of conglomerates companies in Nigeria. This study examined the relationship between audit fees and audit quality of listed conglomerate companies in Nigeria for a period of 12 years (2004-2015). The regression results shows that audit fees has positive impact on audit quality (discretionary accruals) but the impact is not statistically significant at 5%. This implies that as the audit fees increases, the audit quality improves (discretionary accruals decreases).

Abdillah, Muda and Abubakar (2021) examined the factors affecting audit delay with reputation of public accountant office as a moderating variable in manufacturing companies listed in Indonesia from 2009-2020. This study consisted of manufacturing companies listed on the Indonesia Stock Exchange as many as 178 companies. The sample selection in this study was conducted using the purposive sampling method. It was found that audit tenure does not significantly affect audit delay in manufacturing companies listed on the Indonesia Stock Exchange.

Ibenre, Olumide, Ngutor, Terzungwe and Suleiman (2020) examine the effect of audit fees on the timeliness of audit report of listed industrial firms in Nigeria. Data were collected from the annual reports of the selected firms for the period of 2012 to 2018. The result of the hypothesis test showed that audit fees has significant effect on timeliness of audit report of listed industrial firms in Nigeria.

Matozza, Biscotti, D'Amico and Strologo (2020) examine the effect of abnormal audit fees and audit quality in the United States. In line with prior literature on audit research we the research adopted the accruals model outlined by Dechow (1995). The study revealed a significant moderating role of the riskiness associated with the business context in orienting the auditors'

activity and concerns, thereby affecting the audit pricing differently, especially with regard to new business clients.

Egbunike and Asuzu (2020) determined the effect of audit fees on audit report lag in Nigeria. The study used 13 manufacturing companies in the industrial sector, with descriptive statistics, Hausman test and panel regression for data analyses Results showed that audit fees had a negative but insignificant effect on audit report lag.

Gacheru (2018) examined the relevance of audit report lag and its corporate governance determinants among listed companies in the East African Community States in Kenya, Uganda, Tanzania, and Rwanda. This study focused on a ten-year period from 2007 to 2016. The findings revealed that of the four countries Rwanda had the shortest average ARL, 86 days while Tanzania had the longest average, 103 days. The analysis of primary data revealed that most investors rely on published financials for investment decisions, suggesting that ARL could be relevant for investment making decisions. Analysis from the questionnaires revealed that the competence of the clients' finance team, completeness and quality of information provided to auditors and the type of the audit report (qualified or unqualified) highly influenced ARL

Utomo, Kumalasari and Machmuddah (2017) examined the nexus between audit delay, financial performance, firm value banking in Indonesia. The study used all companies listed in BEI in the period of 2011-2013 were as the population in this study. A sample size of 496 companies listed in Indonesia Stock Exchange, which consisted of 77 companies in the financial sector and 419 companies in the non-financial sector was deployed in the study. It was found that audit delay is significantly related to firm value.

Ohiokha and Idialu (2017) examined the determinants of audit delay: a comparative study of Nigerian and Malaysian listed firms. This study comprises all the universe of companies listed on the Nigeria Stock Exchange (189) and the Malaysian Bursa (800) as at December 2014. The result of the descriptive statistics shows that the mean audit delay in Nigeria companies is 112 days with a maximum of 362 days and a minimum of 41 days. The result of the descriptive statistics shows a mean audit lag of 106 days in the case of companies listed on the Malaysian Bursa compared to 112 days for companies listed on the Nigerian Stock Exchange.

Suryanto (2016) examined audit delay and its implication for fraudulent financial reporting of companies listed in the Indonesian Stock Exchange. The objects used in this study are LQ45 companies listed in the Indonesian Stock Exchange from 2010 until 2014. It revealed that the

length/span of audit gave auditors more time in their assignments so that fraudulent financial reporting decreased.

3. MATERIAL AND METHOD

The aim of this study is to investigate the moderating effect of abnormal audit fees on the relationship between audit delay and the quality of financial reporting in firms. To achieve this, an ex-post facto research design is deemed most suitable as it allows for the examination of past events in order to establish causal relationships. Ex-post facto research design is a suitable choice for this study because it involves investigating events or conditions that have already occurred, and it allows researchers to establish causal relationships by comparing groups with pre-existing characteristics on a dependent variable. The study focused on all thirteen (13) industrial goods firms that were listed in the Nigerian Exchange group as at 31st December, 2022, which includes Austin Laz & Company Plc., Berger Paints Plc., Beta Glass Plc., Bua Cement Plc., Cap Plc., Cutix Plc., Dangote Cement Plc., Greif Nigeria Plc., Lafarge Africa Plc., Meyer Plc., Notore Chemical Ind. Plc., Premier Paints Plc., and Tripple Gee and Company Plc. The study employed a purposive sampling technique that involved considering all listed Industrial Goods firms as the potential sample size, with the requirement that the firms must have been listed for the 10-year period between 2012 and 2021. However, companies with incomplete financial data during this period were purposively excluded from the sample size. As a result, the sample size for this study comprised seven (7) firms, namely Berger Paints Plc., Beta Glass Plc., Cap Plc., Cutix Plc., Dangote Cement Plc., Greif Nigeria Plc., and Lafarge Africa Plc.

For this study, secondary data were utilized, obtained from the annual financial reports of the selected industrial goods firms for a 10-year period spanning 2012-2021, using 2012 as base year for accrual quality estimation. The reliability and validity of the research instrument are considered high since the financial statements have been audited and approved for use. The study focuses solely on the moderating role of abnormal audit fees in the relationship between audit delay and financial reporting quality in firms. Therefore, only data on audit fees, accrual quality, and audit report time lag were sourced.

The dependent variables in this study are financial reporting quality and will be measured using accrual quality. Accrual quality will be measured using the modified Jones model. The independent variable, audit delay, will be measured using the audit report time lag, which is the number of days between the end of the accounting period and the date of the audit report. The moderator, Abnormal Audit Fees, is measured the difference between the actual audit fee and the

average audit fee for firms of similar size and industry. **Table 3.1** shows the summary of the variable operationalization.

Table 1: Operational Measurement of Variables

Variables	Type of Variable	Description and Measurement	Source
1. Audit Report Time Lag	Independent	Number of days between the end of the accounting period and the date of the audit report	(Ohiokha & Idialu, 2017)
2. Abnormal Audit Fees	Moderating	Average audit fee for Industrial Goods firms - Actual Audit Fee paid to a firm	(Egbunike & Asuzu, 2020)
3. Accrual Quality	Dependent	Modified Jones model	(Dechow & Dichev, 2002)

Source: *Researcher's Compilation (2023)*

Modified Jones model was used in measuring accrual quality. The formula is stated below:

$TA/A_{(t-1)} = \beta_1 (1/A_{t-1}) + \beta_2 (\Delta \text{ in Rev} - \Delta \text{ in Rec})/A_{t-1} + \beta_3 (PPE/A_{t-1}) + \epsilon_{it} = $ Operating income - Cash from operating activities

Where:

TA $\qquad$ = Total Accruals

A_{it-1} $\qquad$ = Total Assets at the beginning of the year

ΔRev_{it} $\qquad$ = Change in sales from year t-1 to t

ΔRec_{it} $\qquad$ = Change in receivables from year t-1 to t

PPE_{it} $\qquad$ = Plant, property and Equipment

$\beta_1, \beta_2, \beta_3$ $\qquad$ = Represents firm's specific parameters.

ϵ $\qquad$ = Residual

In this context, the residual refers to the firm-specific, discretionary component of accruals. On the right-hand side of the equation, the non-discretionary accruals are represented, while the left-hand side represents the total accruals. By subtracting the right-hand side from the left-hand side, we can calculate the discretionary accruals (DA). The researcher developed a model for the purpose of the study. Owing to dearth of literature on the moderating effect of abnormal audit fee on the relationship between audit delay and accrual quality, the study formulated a model expressing accrual quality as a function of audit report time lag, abnormal audit fees and the interaction. The function developed by the researcher for the purpose of the study is shown below.

AQ = f(ARTL, AAF, ARTL x AAF, …)_____eqn1

The regression model to determine whether abnormal audit fees moderate the relationship between audit report time lag and accrual quality can be represented as:

$$AQ = \beta_0 + \beta_1(ARTL) + \beta_2(AAF) + \beta_3(ARTL \times AAF) + \varepsilon _____ eqn2$$

Where:

AQ	= Accrual Quality
ARTL	= Audit Report Time Lag
AAF	= Abnormal Audit Fees
β_0	= intercept
β_1	= regression coefficient of Audit Report Time Lag
β_2	= regression coefficient of Abnormal Audit Fees
β_3	= interaction coefficient of Audit Report Time Lag x Abnormal Audit Fees
ε	= error term

The collected secondary data were coded into the Stata 14 statistical package, and descriptive analysis of the study was conducted using arithmetic mean, maximum value, minimum value, and standard deviation. To test all the hypotheses of the study, Moderated Ordinary Least Square regression analysis was utilized. The use of Ordinary Least Square (OLS) regression analysis is justified for this study because it estimates the coefficients of the linear equation that best fits the observed data by minimizing the sum of the squared differences between the predicted values and the actual values.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

The study investigated the moderating effect of abnormal audit fees on the relationship between audit delay and the quality of financial reporting in firms. The specific objective of the study were to determine the effect of audit report time lag and abnormal audit fees on accruals quality of listed industrial goods firms in Nigeria The study also examined whether abnormal audit fees affects the relationship between audit report time lag and accruals quality of listed industrial goods firms in Nigeria. The data used in this report were gathered from the annual financial reports of various industrial goods firms. The selected firms were studied over a span of 10 years, from 2012 to 2021. The year 2012 was chosen as the base year for assessing accrual quality. After eliminating the data for the base year, a total of 63 firm-year observations remained, which are detailed in Appendix I of this report. More also, the descriptive statistical analysis is presented below in Table 2.

Table 2 Descriptive Statistics

	AQ	ARTL	AAF	ARTL*AAF
Mean	-0.474626	81.76190	0.003651	404620.0
Median	-0.223062	82.00000	38582.21	3197857.
Maximum	0.126136	210.0000	57357.21	8196764.
Minimum	-6.522220	32.00000	-360842.8	-29589109
Std. Dev.	0.962232	24.59459	97490.48	7032601.
Skewness	-4.336899	2.692512	-2.316939	-2.329921
Kurtosis	26.17075	15.49746	7.487764	8.357361
Jarque-Bera	1606.811	486.1108	109.2337	132.3405
Probability	0.000000	0.000000	0.000000	0.000000
Sum	-29.90143	5151.000	0.230000	25491058
Sum Sq. Dev.	57.40522	37503.43	5.89E+11	3.07E+15
Observations	63	63	63	63

Source: *Eviews 10 Analysis Output (2023)*

The descriptive statistics for each variable in Table 2 provide an overview of the distribution, central tendency, variability, and shape of the data. In this study, four variables were analyzed: AQ (Accruals Quality), ARTL (Audit Report Time Lag), AAF (Abnormal Audit Fees), and ARTL*AAF (the interaction effect of Audit Report Time Lag and Abnormal Audit Fees) in the listed industrial goods firms in Nigeria. The mean (average) AQ value is -0.474626, with a minimum value of -6.522220 and a maximum value of 0.126136. The standard deviation is 0.962232, indicating a moderate degree of dispersion in the data. The skewness value of -4.336899 indicates that the distribution is highly skewed to the left. The kurtosis value of 26.17075 indicates that the distribution has very heavy tails and is highly peaked. The Jarque-Bera test statistic of 1606.811 and a probability value of 0.000000 suggest that the distribution of AQ is not normal.

The mean ARTL value is 81.76190, with a minimum value of 32.00000 and a maximum value of 210.0000. The standard deviation is 24.59459, indicating a moderate degree of dispersion in the data. The skewness value of 2.692512 indicates that the distribution is moderately skewed to the right. The kurtosis value of 15.49746 indicates that the distribution has moderately heavy tails and is moderately peaked. The Jarque-Bera test statistic of 486.1108 and a probability value of 0.000000 suggest that the distribution of ARTL is not normal.

The mean AAF value is 0.003651, with a minimum value of -360842.8 and a maximum value of 57357.21. The standard deviation is 97490.48, indicating a large degree of dispersion in the data. The skewness value of -2.316939 indicates that the distribution is moderately skewed to the left.

The kurtosis value of 7.487764 indicates that the distribution has moderately heavy tails and is moderately peaked. The Jarque-Bera test statistic of 109.2337 and a probability value of 0.000000 suggest that the distribution of AAF is not normal.

ARTL*AAF represents the interaction Effect of audit report time lag and abnormal audit fees). The mean value of ARTL*AAF is 404620.0, with a minimum value of -29589109 and a maximum value of 8196764. The standard deviation is 7032601, indicating a very large degree of dispersion in the data. The skewness value of -2.329921 indicates that the distribution is moderately skewed to the left. The kurtosis value of 8.357361 indicates that the distribution has moderately heavy tails and is moderately peaked. The Jarque-Bera test statistic of 132.3405 and a probability value of 0.000000 suggest that the distribution of ARTL*AAF is not normal.

4.2 Test of Hypotheses

Moderated Ordinary Least Square regression analysis was utilized in testing all the hypotheses of the study. The moderated model estimated is re-stated here under whereas the fixed effect and the random effect models are shown in Appendix II.

$$AQ = \beta_0 + \beta_1(ARTL) + \beta_2(AAF) + \beta_3(ARTL \times AAF) + \varepsilon$$

Table 3 OLS Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ARTL	0.001303	0.005043	0.258421	0.7970
AAF	0.00000141	6.08E-06	0.231871	0.8174
ARTL*AAF	-0.000000058	8.49E-08	-0.683515	0.4970
C	-0.557719	0.424748	-1.313059	0.1942
R-squared	0.078524			
Adjusted R-squared	0.031669			
F-statistic	1.675895			
Prob(F-statistic)	0.181936			
Durbin-Watson stat	1.297210			

Source: Eviews 10 Analysis Output (2023)

Table 3 presents the results of the statistical analysis that examines the relationship between audit report time lag (ARTL), abnormal audit fees (AAF), their interaction term ARTL*AAF, and accrual quality (AQ) of listed industrial goods firms in Nigeria.

The "R-squared" shows the proportion of variation in AQ that is explained by the model, which is 0.078524, indicating a weak relationship between the independent variables and AQ. The "Adjusted R-squared" shows the R-squared adjusted for the number of variables in the model, which is 0.031669. The "F-statistic" shows the overall significance of the model, which is based on the ratio of the explained variance to the unexplained variance. In this table, the F-statistic is 1.675895, indicating that the model is not statistically significant at 0.05 alpha level. The "Prob(F-statistic)" column shows the p-value of the F-statistic, which is 0.181936, indicating that the model is not statistically significant at conventional levels. The "Std. Error" shows the standard error of the estimated coefficients, which indicates the precision of the estimates. The "t-Statistic" measured the magnitude of the estimated effect relative to its variability. In this table, none of the t-values are statistically significant at conventional levels (for instance, $p < 0.05$).

The coefficient of the constant is -0.557719 which represents the intercept or the constant term in the model. It shows the expected value of AQ when all other variables in the model are zero. However, since the t-statistic for this coefficient is not statistically significant, we cannot conclude that the intercept is significantly different from zero. Finally, the "Durbin-Watson stat" shows the test statistic for detecting autocorrelation in the residuals, which is 1.297210. A value between 1 and 2 indicates no significant autocorrelation.

4.2.1 Hypothesis One

H_{01}:   Audit report time lag has no significant effect on the accruals quality of listed industrial goods firms in Nigeria.

ARTL has a positive coefficient of 0.001303, which indicates that for each unit increase in audit report time lag (ARTL), the discretionary accruals is expected to increase by 0.001303. This increase in discretionary accruals means that accrual quality is decreasing. Thus, there is a negative relationship between ARTL and accrual quality.

4.2.1.1 Decision

Since the *p*-value = 0.7970 is greater than 0.05, the null hypothesis is accepted. Therefore, audit report time lag has no significant effect on the accruals quality of listed industrial goods firms in Nigeria (*p*-value = 0.7970). In other words, this finding suggests that the time taken to complete an audit does not affect the quality of accruals reported by industrial goods firms in Nigeria.

Ordinarily, a longer audit report time lag is generally associated with lower quality financial reporting because it can indicate a lack of internal control or complexity in the financial reporting process. However, this finding suggests that this may not be the case in Nigeria's industrial goods industry. This negates the results by Abdillah, Muda and Abubakar (2021).

4.2.2 Hypothesis Two

H$_{02}$:   Abnormal audit fee has no significant effect on the accruals quality of listed industrial goods firms in Nigeria.

AAF has a coefficient of 0.00000141, which indicates that for each unit increase in abnormal audit fees (AAF), the discretionary accruals is expected to increase by 0.00000141. This increase in discretionary accruals means that accrual quality is decreasing. Thus, there is a negative relationship between AAF and accrual quality.

4.2.2.1 Decision

Since the p-value = 0.8174 is greater than 0.05, the null hypothesis is accepted. Therefore, abnormal audit fee has no significant effect on the accruals quality of listed industrial goods firms in Nigeria (p-value = 0.8174).

This finding indicates that the amount paid as audit fee does not have a significant impact on the quality of accruals reported by industrial goods firms in Nigeria. This finding is not in support of the argument by Matozza, Biscotti, D'Amico and Strologo (2020).

4.2.3 Hypothesis Three

H$_{03}$:   There is no moderating effect of abnormal audit fees on the relationship between audit report time lag and accruals quality of listed industrial goods firms in Nigeria

ARTL*AAF has a negative coefficient of -0.000000058, which indicates that the interaction effect of ARTL and AAF on discretionary accruals is negative. In other words, since a decrease in discretionary accruals means that accrual quality is increasing, the relationship between ARTL and accrual quality is stronger for firms that have higher AAF.

4.2.3.1 Decision

However, since the p-value = 0.4970 is greater than 0.05, the null hypothesis is accepted. Therefore, there is no moderating effect of abnormal audit fees on the relationship between audit report time lag and accruals quality of listed industrial goods firms in Nigeria (p-value = 0.4970). This finding suggests that abnormal audit fees do not influence the relationship between audit report time lag and accruals quality in industrial goods firms in Nigeria, opposing the stance of Ibenre, Olumide, Ngutor, Terzungwe and Suleiman (2020).

CONCLUSION AND RECOMMENDATIONS

Ensuring financial reporting quality is a crucial element for any organization, as it reflects the company's performance and reliability. The accuracy and validity of financial statements are essential, and external audits play a significant role in ensuring their integrity. The duration taken

to complete an external audit, known as audit delay, is a contentious issue that has received considerable debate. Longer audit delays have been associated with lower financial reporting quality, as it increases the likelihood of errors and inaccuracies in the financial statements. Abnormal audit fees may indicate higher audit risks, suggesting that the external auditor is dedicating more time and resources to conduct the audit due to the complexity of the company's operations or the risk of financial misstatements. The moderating role of abnormal audit fees on the relationship between audit delay and financial reporting quality indicates how abnormal audit fees can impact the connection between audit delay and financial reporting quality, either strengthening or weakening it. The findings of the present study revealed that abnormal audit fees weakens the negative relationship between audit delay and financial reporting quality, although not significantly. Thus, abnormal audit fees have the potential to indicate higher audit risks, which can prompt the external auditor to pay closer attention to details, ultimately leading to improved financial reporting quality.

The findings of the study suggest that audit report time lag and abnormal audit fees do not significantly affect the accruals quality of listed industrial goods firms in Nigeria, and abnormal audit fees do not moderate the relationship between audit report time lag and accruals quality. This finding has several implications for various stakeholders in Nigeria's industrial goods industry. It implies that the level of audit report time lag and abnormal audit fees may not be a significant factors that determine the quality of financial reporting in the industrial goods industry in Nigeria. Based on the findings of the study, the following recommendations can be drawn:

1. Companies should strive to maintain efficient audit processes and timely submission of financial statements to external auditors to ensure that any potential issues can be identified and resolved promptly.

2. Industrial goods companies should focus more on selecting competent external auditors than on solely basing their choice on the cost of audit fees. It is important for companies to engage external auditors with the necessary skills and experience to conduct thorough audits that can ensure the accuracy and reliability of financial statements.

3. Industrial goods firms should prioritize selecting competent external auditors, ensuring timely submission of financial statements, and providing necessary information and resources to external auditors to enable them to conduct thorough audits.

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EFFECT OF AUDIT FIRM SIZE AND AUDITORS' TENURE ON FINANCIAL STATEMENT FRAUD OF LISTED NON-FINANCIAL FIRMS ON THE NIGERIAN EXCHANGE GROUP

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ABSTRACT:

This paper aimed at ascertaining the effect of audit firm size and auditors' tenure on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group for a period of 2011 to 2022. The study employs ex-post facto design and secondary data. The population consisted of ninety-five (95) non-financial firms listed in the Nigerian Exchange Group as at December, 2022. The final sample consisted of seven-six (76) non-financial firms selected using purposive sampling. We applied Robust least square regression analysis in addition to the application of Beniesh M-score model to proxy the likelihood of financial statement fraud where applicable, via the E-view 9 software for the panel data in order to determine the relationship between the variables. Findings from this study indicated that audit firm size and auditors' tenure have no significant positive effect on financial statement fraud of non-financial firms listed on the Nigerian Exchange Group. On the basis of the above findings, we recommended that since audit firm size has no significant positive effect on financial statement fraud of listed non-financial firms, then is not necessary because whether firm engage one of the big 4 audit firms or one of non-big 4 audit firms does not necessarily eliminate financial statement fraud. The study also recommends that regulatory authority should ensure a moderate audit tenure of 5years, to enable the audit firm time to understand client's business and give a thorough audit to reduce financial statement fraud.

1. INTRODUCTION

Financial statement fraud has reduced the credibility of corporate organizations financial reports (Abdullah & Mansor, 2015). This makes it necessary for researchers and stakeholders to continually monitor the activities of management, in order to prevent the occurrence of fraud in the financial statement. The changes in the interest of the corporate stakeholders can lead to sub-optimal management decisions (Uwuigbe, Peter & Oyeniyi, 2014). Given the aforementioned malfeasances, efforts have been made by regulatory bodies to remedy these financial statement

frauds; this has led to the strengthening of accounting standards (Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standard (IFRS) geared towards the rehabilitation of the financial reporting quality in order to promote financial transparency and accountability (Abiola & Oyewole, 2013).

Many scholars such as Kozlov, Hurtalo-Guain and Trakulhon (2018); and Popoola, Che-Ahmad and Samsudin (2014) acknowledged the quest for the detection of financial statement fraud following the release of the Statement on Auditing Standard (SAS) No. 99 "Consideration of Fraud in Financial Statement Audit" by the American Institute of Certified Public Accountants (AICPA, 2002) requiring auditors to obtain reasonable assurance that financial statements are free from material misstatement whether due to fraud or error. The Institute of Chartered Accountant of Nigeria followed suit by publishing the Nigeria Standards on Auditing No. 5 to cater for the auditor's responsibility to fraud (Popoola, Che-Ahmad & Samsudin, 2014). Although these standards have placed the responsibility of fraud prevention and detection on management and those in charge of governance, auditors have been required to increase their detection rate by probing further into any irregularities or material misstatement that may signify fraud. The role of financial statement fraud on the output and growth of non-financial firms in Nigeria has raised a lot of concerns, despite the fact that most of all these financial statements are audited by registered accountants/auditors in Nigeria; managements have always found loopholes in perpetrating financial statement fraud. Over the past few years, corporate failures observed in Nigeria have continued to raise burning question on the relevance and reliability of audit reports, especially where shareholders interest is not protected (Egbunike & Abiahu, 2017). More issue in literature is that, financial statement frauds in Nigeria have not been resolved in a way that can boost investors' confidence; also, the public confidence has waned as a result of lack of check and balances in the political terrain and poor corporate governance practice. In other to address these problems, this research paper ascertains the effect of audit firm size and auditors' tenure on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group as at 31st December, 2022. Also, in order to empirically ascertains this objective, the paper is divided into five sections namely; background to the study, literature review, methodology, results and discussion and conclusion and recommendation.

1.1 Objectives of the Study

The broad objective of the study is to ascertains the effect of audit firm size and auditors' tenure on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group. The following are the specific objectives of the study:

1. To determine the effect of Audit firm size on financial statement fraud of listed non-financial firms in Nigeria.

2. To ascertain the extent to which Auditors' tenure affects financial statement fraud of listed non-financial firms in Nigeria.

1.2 Research Hypotheses

The following hypotheses were accordingly formulated in their null forms:

H_1:   Audit firm size has significant effect on financial statement fraud of listed non-financial firms in Nigeria.

H_2:   Auditors' tenure has significant effect on financial statement fraud of listed non-financial firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

The literature abounds with several audit firm attributes affecting financial statement fraud. The paper dealt with the audit firm size, and auditors' tenure.

2.1.1 Audit Firm Size

DeAngelo (1981) in Gammal (2012) analytically demonstrated that Audit Firm Size has a positive relationship with audit quality and auditors' opinions, since a large audit firm (for instance., with a greater number of clients) has more to lose by failing to report a material misstatement detected in a client's records. Following DeAngelo's study, other authors empirically examined the relationship between audit firm size and the auditors' going-concern opinion decisions as a proxy for audit quality. For instance, Dye (1993) suggests that large audit firms are more likely to disclose going-concern problems because they have more wealth at risk from litigation. Lennox (1999) showed that opinions issued by large auditing firms are more accurate and give more informative signals of financial failure than opinions by less experienced auditors (small firms). Bauwhede, Willekens, and Gaeremynck (2003) argued that (Big 4) audit firms are more competent because they use standardized audit methodologies and training programmes throughout the world. Geiger and Rama (2006) found that both Type I and Type II error rates for Big Four audit firms are considerably lower than the error rates for non-Big four firms.

2.1.2 Auditors' Tenure

The Cohen Commission (AICPA 2016) mentioned that a new auditor brings a fresh perspective to the audit. Audit tenure is the duration or length of the auditor-client relationship. A rather too long association between the auditor and his client may constitute a threat to independence as

personal ties and familiarity may develop between the parties, which may lead to less vigilance on the part of the auditor. Arrunada and Paz-Ares (2016) suggest that the auditor may become less objective and apply less effort toward the detection of material misstatements when firm tenure is longer. Also, Lim and Tan (2010), suggest that a long-term relationship between the auditor and the client imposes a threat to auditor independence for smaller clients weakly monitored by auditors than larger clients. Raghunandan (2012), on the other hand, found out that audits performed by audit firms with a short-term relationship with clients had more audit failures than those performed with audit firms which had long term audit tenures.

Sarbanes-Oxley Act commonly known as the SOX Act (2012), found it unlawful for a lead audit partner and reviewer of a registered public auditing firm to conduct audit of client if he has ever been involved in each of the five (5) previous audits of the same client. This Act however falls short of requiring audit firm rotation. It has been thought firms may go ahead and require audit firm rotation especially in cases where there is a change of the lead audit partner. Certainly, long audit tenure has been indicated as a devising factor that may have facilitated the many emerging corporate scandals. Knapp (1991) shared a similar opinion on the connection between audit tenure and competence with the US audit committee. They agreed that there are high chances that an auditor in the first year of his mandate will detect anomaly and that the ability to detect error decreases gradually, reaching its weakest level after 20 years of engagement hence negating the association of audit tenure with quality.

2.1.3 Fraud

Fraud has no generally acceptable definition; the reason is that fraud implies different things to different individuals. Fraud is any illegal act, deceit and breach of confidence. It is a misrepresentation with the intention of deceiving another party (Ojeka, Iyoha, Asaolu, 2015). This indicates that fraud is distinct from mistake, since the latter is the consequence of human limitations without attempting to mislead (Hamilton & Gabriel 2014).

2.1.4 Financial Statement Fraud

Fraudulent financial reporting is an intentional misstatement or omission of amounts or disclosures with the intent to deceive others. Financial statement fraud is the deliberate fraud committed by management that injures investor and creditors with materially misleading financial statement (Khahn 2009). Misstatement or accounting irregularities in financial statement can arise from error or fraud (Kwok 2005). It is therefore important to differentiate between financial statement error and financial statement fraud. Financial statement error refers to unintentional misstatement in financial statement, including the omission of an amount or a disclosure.

2.1.4.1 Reliability and Credibility of Financial Statement.

Reliability of audit report has to do with a condition in which the investors and all the company stakeholders consistently find the audit reports and opinion about a company's financial statements and position to be both dependable and credible (Mitra, Deis & Hossain 2009). When audit reports are reliable, they also reveal whether financial statement are reasonably free from fraud, error and bias and whether the accountants are justified in making a 'going concern' assumption. The implication of this is that for the audit report to be reliable it must give investors sufficient information concerning the quality and accuracy of the accounting reports. This being the case, investors can decide on the extent to which to place reliance on the report in making investment decisions. Credibility of financial statements refers to the extent to which investors rely on the information reported in financial statements as a result of the faith or trust the investors have in the financial statements presented to them.

2.2 Theoretical Review

2.2.1 Theory of Inspired Confidence/Rational Expectations Theory

Theodore Limperg of the University of Amsterdam in 1926 propounded a theory, known as the Theory of Inspired Confidence, which ultimately transformed into theory of rational expectations. The theory asserts that the worth of the auditors' report is a function of the auditor technical know-how, auditor independence and his professional competence. Generally speaking, this theory is a non-static theory which presupposes that as the business community evolves, so also the demand it put on the auditors' function (Millichamp & Taylor, 2012). Limperg proposed that the work performed by the auditor ought to be guided by the realistic expectation of the users of audit reports and the expectation should not be dashed by the auditor. In the other hand, auditors should not give auditee unrealistic hope that cannot be attained. Limperg's theory states that the usefulness of the auditor's opinion is based on the general understanding the society has about the usefulness of audit. Limperg stresses the social usefulness of auditors in meeting societal expectations for reliable financial information. The auditor must meet the expectations of the rationally well knowledgeable layman but should not create unrealistic expectations that cannot be justified by the work carried out. The auditor thus has a broader duty to society than a mere a watchdog for the shareholders (Millichamp & Taylor, 2012). Limperg's Theory dwells majorly on demand and the supply of audit services.

2.2.2 Social Exchange Theory

Social exchange relationships are often described as subjective, relationship-oriented contracts between employees and organizations characterized by mutual exchange of socio-emotional benefits, cooperation, trust, and a long-term focus (Blau, 1964 in Larasati, Ratri, Nasih, & Harymawa, 2019). Social exchange theory provides a useful framework for understanding how social interaction in the workplace influence employee relations to their jobs and participation in the organization. Social exchange relationships can therefore strengthen the motivation of employees to behave in a manner that would provide beneficial outcomes for the organization because of the strong obligation on the part of the employees to support the organization (Cropanzano & Mitchell, 2005). However, the current study is not about the relation between employees and their organizations but between audit client and the auditor. In a sense the auditor could be said to be an employee of the client. The principle of social exchange theory can therefore be applied in this study. Recent study indicates that audit clients prefer a relational (social exchange – based) approach with their auditors rather than a transactional (economic exchange – based) approach (Fontaine & Pilote, 2011, 2012). The current study involves the relationship between audit firm size, auditors' tenure and financial statements, which falls within the auditor – client setting. The quality of the audit service provided by the auditor is dependent on the social relational exchange between the auditor and the client.

This paper therefore, is anchored on theory of inspired confidence. The theory explained that the link between audit firm attributes and financial statement fraud is thought to be indirect because the auditor thus has a broader duty to society than a mere a watchdog for the shareholders. The theory of inspired confidence addresses both the demand and supply for audit services. Accountability in the non-financial firms may be realized through the issuance of periodic financial reports concerning the financial performance of various listed non-financial firms in Nigeria. However, since this information provided by the management may be biased and outside parties have no direct means of monitoring, an audit is required to assure the reliability of this information in order to reduce financial statement fraud in the industries. Theory of inspired confidence provide a link between the users of information requirement for credible and reliable audit report and the capability and capacity of the audit processes to meet those needs.

2.3 Empirical Review

Yayangida, Ahmed, Nyor and Yahaya (2023) examined the effect of audit firm size on financial reporting quality of thirty (30) Nigerian listed non-financial services firms moderated by audit committee independence for a period of 11 years from 2011 - 2021. The study used descriptive

research design while secondary data was collected from the annual reports of the selected firms and website of Security and Exchange Commission. The descriptive statistics, correlation analysis, and regression analysis were used for data analysis. The findings of the study showed that audit firm size is significantly associated with financial reporting quality when moderated by audit committee independence.

Okeke-Muogbo and Egungwu (2019) examined the effect of audit tenure on earnings management of quoted non-financial companies in Nigeria. Secondary data were obtained from twenty-four (24) firms quoted on the floors of the Nigerian stock exchange for the period, 2007-2017 (11years). The study adopted ex-post facto research design. In the analysis of data, the study employed Hausman specification test to test between the fixed and random effects since data for the study involved panel data. The white test (homoskedasticity test) was also conducted to check for constant variation of the disturbance term or whether the variance of the error term is not constant. The findings indicated that audit tenure, has a significant positive effect on earnings management of the Nigerian quoted companies.

Ginting and Hidayat (2019) analyzed the effect of a fraudulent financial statement, company size, profitability, and the size of the audit firm on audit delay. The study population was 94 selected agricultural and mining enterprises that were registered on the Indonesia Stock Exchange from 2014-2017. Purposive sampling techniques were utilized. Analytical techniques employed in this research are the normality test, descriptive statistical analysis, Pearson correlation, and multiple linear regression analysis. The results indicate that the scope of the fraudulent financial statement and profitability did not affect the audit delay. However, both company size and public accounting firm size have a significant negative effect on the audit delay.

Bambang, Wishnu, Ari, and Syntia (2019) analyzed the effect of financial liquidity, audit rotation and audit tenure on financial statement fraud. Population determined is a manufacturing company with a food and beverage subsector listed on the Indonesia Stock Exchange period 2013-2018. The sample selection is done by purposive sampling technique, the sample results that meet the criteria are 78 samples. The research method used is multiple linear methods, where the results of the research partially show that the liquidity financial variable does not significantly affect fraudulent financial statements, variable audit rotations significantly influence fraudulent financial statements, and variable audit tenure does not significantly influence financial statement fraud.

Eyenubo, Mohamed and Ali (2017), conceptualized the effect of audit firm tenure and financial reporting quality. There have been conflicting results from prior studies. One school of thought is of the view that the longer the audit tenure it may cause intimacy between the auditor and the

client that will reduces the readiness of auditor to qualify audit report. On the other hand, the contrary view is that the longer the audit firm tenures it will bring familiarity with the operations and accounting system thereby enhancing the audit quality. This paper suggested that the audit firm tenure should be moderate between the range of one and three years.

Musa and Sani (2016) examined the impact of audit firm size on financial reporting quality of listed insurance companies in Nigeria. Data were collected from the annual reports and accounts of thirteen sampled insurance companies out of thirty-three listed insurance companies on Nigerian Stock Exchange for the period of eight years (2008 to 2015). Empirical analyses were carried out using descriptive statistics, Pearson correlation and multiple regressions (Ordinary Least Square). The study found that audit firm size has a positive and significant impact on financial reporting quality.

3. MATERIAL AND METHOD

The study adopted the ex post facto research design to ascertain the effect of audit fees and auditors' independence on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group. Moreover, the suitability of this choice was based on the fact that the design allows researchers to establish the time sequence of the variables on the basis of logical considerations. This is appropriate for a developing economy like Nigeria, and also, it is adequate enough to validly capture any behavioural change contrary to a cross-sectional design method usually associated with most studies in this area both in developed and developing economies.

The population of the study is made up of non-financial firms listed on the Nigerian Exchange Group (NGX). As at 31st December 2022, ninety - five (95) non-financial firms were listed on the Nigerian Exchange Group floor. The study used purposive sampling technique to select the sample population. This sampling technique was used in other to enable researcher select firms that he can conveniently assess their data. Non-financial firms that have not operated on the floor of Nigeria Exchange Group for the period of twelve years (2011 to 2022) were excluded from the population. The total number of non-financial firms that have their financial statements available either on their website or in the office of the Nigerian Exchange Group as at 31st December, 2022 were used as our sample population. The sources of data include annual reports and accounts of companies, corporate website of companies and the Nigerian Exchange Group Fact books and CBN Statistical Bulletin of the selected seventy - six (76) non-financial firms listed on the Nigerian Exchange Group covering a period of 12 years (2011 – 2022).

The dichotomous nature of the dependent variable of financial statement fraud necessitated the use of Binary logit regression technique in analyzing the data collected from annual reports of

selected non-financial firms listed on the Nigeria exchange group between 2011 and 2022. The extent of fraudulent financial reporting is measured by the Beneish M-score model. The Robust Least Square (RLS) multiple regressions was adopted to examine the effect of audit firm size and auditor's tenure on financial statement fraud of listed non-financial firms on Nigerian Exchange Group. The study used E - View version 9 software for data analysis.

3.1 Model Specification

The model for this study is explicitly expressed as;

$$FRAUD_{it} = \beta_0 + \beta_1 AFS_{it} + \beta_2 AT_{it} + \mu_{it} \ldots\ldots\ldots\ldots Eqn\ 1$$

Where; FRAUD = Beneish M-score for model 1, AFS = Audit Firm Size; AT = Auditor's Tenure. β_0 is the constant, β_1, β_2, are the coefficients of the explanatory variables for the model; μ is the error term that captures the stochastic variables in the model; i = is the collection of the firms; and t = is the time factor. The *apriori* expectations are stated as: $\beta_1 > 0$; $\beta_2 > 0$;

4. RESULT AND DISCUSSIONS

4.1.1 Data Analysis

Table 1: Normality Test for the Variables

	Beneishmscore	Auditfirmsize	Auditortenure
Jarque-Bera	38401779	185.4479	234.9126
Probability	0.000000	0.000000	0.000000
Observations	912	912	912

Source: Author's Computations, (2023)

The Jarque-Bera test in the study indicated whether the residuals are normally distributed. The results in Table 1 showed that the probability values of the Jarque-Bera statistic for the three variables are 0.000, 0.000 and 0.0000. The null hypothesis posits that the residuals are normally distributed while the alternate hypothesis says otherwise. The alternate hypothesis that the residuals are not from normal distribution was accepted since the p-values are all less than 5%. Summarily, the OLS assumption of normality of residuals was not satisfied, possibly because of presence of outliers.

Table 2: Descriptive Statistical Analysis

	Beneishmscore	Auditfirmsize	Auditortenure
Mean	-1.893414	0.577477	0.727027
Maximum	336.0800	1.000000	1.000000
Minimum	-15.85000	0.000000	0.000000
Std. Dev.	10.66397	0.494183	0.445688
Observations	912	912	912

Source: Author's Computations, (2023)

The mean value of Beneish m-score was shown to be -1.893414 with a standard deviation of 10.66397. If the Beneish M-score of a non-financial company is greater than -2.22, there is a likely probability of profit manipulation. Therefore, the average value of Beneish m-score = -1.893414 implies that there is a very low possibility for profit manipulation amongst listed non-financial firms in Nigeria from 2011 to 2022. However, the standard deviation of 10.66 indicates that the Beneish M-score of the selected firms are widely dispersed. The lowest Beneish m-score of the firms under study was -15.85 while the highest Beneish m-score attained was 336.08. About 57.75% of the selected non-financial firms engaged the services of Big4's. Auditor tenure had a mean value of 0.7270 with a standard deviation of 0.4457.

4.1.2 Unit Root Test

Augmented Dickey-Fuller (ADF) was deployed to examine the Unit Root Test Results of the data. Table 3 shows the test results below.

Table 3: Summary of Unit Root Test Results Using Augmented Dickey-Fuller

Variables	T-ADF	Lag Length	Test critical values: @ 5% Level	Prob.	Remark
Beneishmscore	-33.54533	1(0)	-2.863936	0.0000	Stationary
Audit Firm Size	-9.401157	1(0)	-2.863936	0.0000	Stationary
Auditor Tenure	-25.87608	1(0)	-2.863939	0.0000	Stationary

Source: Author's Computations, (2023)

The unit root test results above showed that all of the variables (audit firm size, auditors' tenure, and Beneish m-score) are stationary at 5% levels of significance. Hence, since all the variables are stationary, the null hypothesis is rejected while the alternate hypothesis was accepted, which indicates that the variables are stationary or got no unit root. The decision rule is to reject the null hypothesis and accept the alternate hypothesis if T-ADF is more than the critical using absolute values.

4.1.3 Test for Serial Correlation

There are a number of classical assumptions of least square regression one of which is that residuals should not be correlated across time. Breusch–Godfrey test for serial correlation was used in assessing the serial correlation of the regression model. Table 4 shows the result of the Breusch–Godfrey test for serial correlation.

Table 4: Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.067159	Prob. F(2,1102)	0.9351
Obs*R-squared	0.135276	Prob. Chi-Square(2)	0.9346

Source: Author's Computations, (2023)

The test for autocorrelation was performed to establish whether the residuals are correlated across time. The null hypothesis is that no first order serial /auto correlation exists. Based on the findings, the observed probability chi square = 0.9351 was not significant at 5% level of significance. Hence, the null hypothesis was accepted implying that there was no presence of first order serial correlation. Therefore, the assumption of no autocorrelation was satisfied.

4.1.4 Test for Heteroskedasticity

Heteroskedasticity occurs when the variances of the error terms are not constant. Glejser test of Heteroskedasticity was carried out as reported in Table 5 below.

Table 5: Heteroskedasticity Test: Glejser

F-statistic	1.650089	Prob. F(5,1104)	0.1440
Obs*R-squared	8.233750	Prob. Chi-Square(5)	0.1438
Scaled explained SS	21.94379	Prob. Chi-Square(5)	0.0005

Source: Author's Computations, (2023)

The null hypothesis of homoscedasticity is rejected if the Prob. (Chi-square) is greater than 5% level of significance. The results indicated that the observed probability chi square significance of 0.1440 was not significant hence the null hypothesis of existence of homoscedasticity is accepted. Therefore, the issue of Heteroskedasticity does not exist in the model since the variances of the error terms are constant. Also, the assumption of no Heteroskedasticity was as well satisfied.

4.2 Test of Hypotheses

The data used in the study did not satisfy the normality assumption of OLS. Spurious regression coefficients would be produced by OLS if there are outliers in the residuals. Thus, to avoid producing spurious regression coefficients, Robust Least Square regression technique was used to estimate the test results from which hypotheses testing was done.

Table 6: Robust Regression for Hypotheses Testing

Dependent Variable: BENEISHMSCORE

Method: Ordinary Least Squares

Sample: 1 912

Included observations: 912

Method: MM-estimation

S settings: tuning=1.547645, breakdown=0.5, trials=200, subsmpl=912,
    refine=2, compare=5

M settings: weight=Bisquare, tuning=4.685

Random number generator: rng=kn, seed=793000606

Huber Type II Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.808661	0.158199	-17.75395	0.0000
Audit firm size	0.099896	0.058471	1.708470	0.0875
Auditor tenure	0.031896	0.061612	0.517693	0.6047

Robust Statistics			
R-squared	0.003137	Adjusted R-squared	-0.001378
Rw-squared	0.007320	Adjust Rw-squared	0.007320
Akaike info criterion	1561.657	Schwarz criterion	1594.115
Deviance	1029.478	Scale	0.814435
Rn-squared statistic	6.049710	Prob(Rn-squared stat.)	0.301412

Non-robust Statistics			
Mean dependent var	-1.893414	S.D. dependent var	10.66397
S.E. of regression	10.70869	Sum squared resid	126602.4

Source: Author's Computations, (2023)

The R_w^2 value of 0.007, shows that about 1% variation in financial statement fraud (proxy by Beneish M- model) is explained by systematic changes in the audit firm size and auditors' tenure. The Rn-squared statistic of 6.0497 and the corresponding Prob (Rn-squared stat.) of 0.3014 indicate that audit firm size and auditors' tenure have no significant predictive relationship with financial statement fraud. This is because the Prob (Rn-squared stat.) of 0.3014 is greater than 0.05.

4.2.1 Hypothesis One

H_1:   Audit firm size has significant effect on financial statement fraud of listed non-financial firms in Nigeria.

Audit Firm Size has a positive coefficient of 0.099896 which means that an increase in Audit Firm Size by 1 unit will increase the financial statement fraud of listed non-financial firms by 0. 099896.The null hypothesis was accepted because the prob(z) = 0.0875 for Audit Firm Size is greater than 0.05. In conclusion, Audit firm size has no significant positive effect on financial statement fraud of listed non-financial firms in Nigeria at 5% level of significance.

4.2.2 Hypothesis Two

H_1:   Auditors' tenure has significant effect on financial statement fraud of listed non-financial firms in Nigeria.

Auditors' tenure has a positive coefficient of 0.031896 which means that an increase in Auditors' tenure by 1 unit will increase the financial statement fraud of listed non-financial firms by 0.031896. The null hypothesis was accepted because the prob(z) = 0.6047 for Auditors' tenure is greater than 0.05. In conclusion, Auditors' tenure has no significant positive effect on financial statement fraud of listed non-financial firms in Nigeria at 5% level of significance.

CONCLUSION AND RECOMMENDATIONS

This paper ascertained the effect of audit firm size and auditors' tenure on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group from 2011 to 2022. The findings of the study revealed that audit firm size and auditors' tenure have no significant negative effect on financial statement fraud of listed non-financial firms on the Nigerian Exchange Group. This suggest that whether firm engage one of the big 4 audit firms or one of non-big 4 audit firms does not necessarily eliminate financial statement fraud. Also, the study suggest that audits performed by audit firms with a short-term relationship with clients had more audit failures while auditor may become less objective and apply less effort toward the detection of material

misstatements when firm tenure is longer, hence auditors' tenure must be moderate in order to avoid unnecessary interfering of the audit firm with the business of its client.

1. The study recommends that since audit firm size has no significant positive effect on financial statement fraud of listed non-financial firms, then is not necessary because whether firm engage one of the big 4 audit firms or one of non-big 4 audit firms does not necessarily eliminate financial statement fraud.

2. The study also recommends that the regulatory authority is to ensure a moderate audit tenure of may be 5years, to enable the audit firm time to understand client's business, give thorough audit and reduce financial statement fraud.

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CORPORATE ATTRIBUTES AND TAX PLANNING OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

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ABSTRACT:

The study examined the effect of corporate firm attributes on tax planning of listed industrial goods firms in Nigeria. The specific objective of the study is to ascertain the effect of firm leverage, firm liquidity and firm size on the book-tax difference of listed industrial goods firms in Nigeria. The study used the ex-post facto research design. The study used purposive sampling to select eight (8) out of thirteen companies that were listed in Nigeria. The study utilised secondary data collected from the financial statements of selected manufacturing firms spanning from 2013 to 2022, resulting in a historical data timeframe of 10 years. The study employed descriptive analysis to provide a detailed description of the research variables. Panel least square regression was used in testing the hypotheses. The findings showed that: firm leverage has a significant negative effect on the book-tax difference for listed industrial goods firms in Nigeria ($p<0.05$); firm liquidity has a non-significant negative effect on the book-tax difference for listed industrial goods firms in Nigeria ($p>0.05$); firm size has a non-significant negative effect on the book-tax difference for listed industrial goods firms in Nigeria ($p>0.05$). The study recommends that managers of industrial goods firms in Nigeria should optimize tax planning strategies by leveraging increased debt financing, strategically structuring financial operations to capitalize on interest deductions and minimize overall tax liabilities for listed industrial goods firms in Nigeria.

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1. INTRODUCTION

Corporate tax planning has the potential to skew the distribution of tax burdens and, from an economic perspective, disrupts resource planning. This practice encompasses employing legal strategies to minimize tax liabilities, as well as engaging in tax-aggressive tactics to sidestep tax obligations (Tanko, 2023; Maigoshi &Tanko, 2023). The gap existing between these approaches creates a fertile ground for tax evasion, resulting in a depletion of government revenue. While many tax planning strategies are legally permissible, some may inhabit a legally ambiguous space or even involve outright illegal methods of tax evasion, such as underreporting taxable income or

inflating tax deductions (Ogbeide, Anyaduba, & Akogo, 2022). The consequential loss of revenue stemming from tax planning activities has profound implications for the government's ability to provide public goods and engage in effective fiscal planning. This, in turn, contributes to a decline in the country's gross domestic product. The adverse impact on economic indicators emphasizes the need for a nuanced examination of corporate tax planning, considering its potential repercussions on both government fiscal resources and the overall economic well-being of the nation (Danladi & Alhassan, 2022; Jaffar, Derashid & Taha, 2021).

The challenge of tax avoidance has stirred concern within the FIRS due to its association with elements of tax evasion. Despite tax evasion being a criminal offense punishable under section 40 of the IFRS Act, instances of it persist. This persistent issue poses a substantial threat to the revenue stream of the Federal Government of Nigeria. Bariyima and Akenbor (2014) assert that minimizing tax liability through tax planning essentially entails shifting value from the state to the firm.The relationship between firm attributes, specifically firm size, firm leverage, and firm liquidity, and tax planning is complex and can be influenced by various factors (Maigoshi & Tanko, 2023). Larger firms often have more resources, both financial and human, which can be dedicated to tax planning activities. They may have greater access to specialized tax professionals and the financial capacity to engage in complex tax strategies. Also, larger firms may be more inclined to engage in tax planning strategies such as transfer pricing, international tax structures, and sophisticated tax credits to optimize their tax position. However, the scrutiny on larger firms by tax authorities might be higher, leading to a careful balance between aggressive tax planning and avoiding legal issues (Aladesonkanmi, 2020). More also, firms with higher leverage may have more opportunities for tax planning (Panda & Nanda, 2020), particularly through interest deductions. Interest payments on debt are often tax-deductible, providing an incentive for firms to use debt financing to reduce taxable income.

Leveraged firms may engage in debt-related tax planning strategies to enhance interest deductibility. However, tax authorities may closely monitor such strategies to prevent excessive interest deductions, and changes in tax laws can impact the effectiveness of these approaches (Abdulkadir, Issa & Yunusa, 2020).Finally, liquidity levels influence a firm's ability to invest in tax-saving opportunities. Highly liquid firms may have the flexibility to engage in certain tax planning strategies that require upfront investments or involve timing considerations. Firms with ample liquidity may be better positioned to implement tax-efficient strategies, such as tax-efficient investments, without facing financial constraints (Danladi & Alhassan, 2022). On the other hand, highly liquid firms might also attract more attention from tax authorities, necessitating careful

adherence to tax regulations. It is in view of the above issues that this study examines the effect of corporate firm attributes on tax planning of listed industrial goods firms in Nigeria.

1.1 Objectives of the Study

The broad objective of the study is to examine the effect of corporate firm attributes on tax planning of listed industrial goods firms in Nigeria. The specific objectives are as follows:

1. to ascertain the effect of firm leverage on the book-tax differenceof listed industrial goods firms in Nigeria.
2. to investigate the effect of firm liquidity on the book-tax difference of listed industrial goods firms in Nigeria.
3. to ascertain the effect of firm size on the book-tax difference of listed industrial goods firms in Nigeria.

1.2 Research Hypotheses

The following hypotheses were accordingly formulated in their null forms:

H_1:   Firm leverage does not have any significant effect on the book-tax difference of listed industrial goods firms in Nigeria.

H_2:   Firm liquidity does not have any significant effect on the book-tax difference of listed industrial goods firms in Nigeria.

H_3:   Firm size does not have any significant effect on the book-tax difference of listed industrial goods firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Corporate Attributes

Corporate attributes, often interchangeably referred to as firm structure, firm heterogeneity, firm specifics, or firm characteristics, constitute the distinctive traits that set one company apart from others within the same industry (Nworie, Okafor & John-Akamelu, 2022). These attributes encompass a multidimensional range of both financial and non-financial elements, collectively portraying the unique identity and condition of a firm within its industry domain (Dean, Mengüç & Myers, 2000). The conceptualization of corporate attributes varies across academic and business contexts, with diverse criteria employed in their definition. Yet, there is a unanimous consensus in the literature that corporate attributes encapsulate the organizational objectives of a firm and the resources deployed to attain those objectives (Taiwo, Festus & Ajao, 2022). By examining the core of what makes a company distinct, these attributes provide a comprehensive understanding

of its nature, operations, and positioning in the competitive market milieu(Nworie, Okafor & John-Akamelu, 2022).

Corporate attributes outline the internal framework that delineates the hierarchical arrangement, reporting lines, and functional divisions within an organization. It reflects how tasks, responsibilities, and decision-making authority are distributed across different levels, shaping the dynamics of the firm's internal operations (Johnson, Uwah & Udoh, 2023). Corporate attributes encompasses the inherent diversities and disparities that exist within a company, acknowledging that not all firms are homogeneous entities. This could manifest in terms of varied size, market segments, liquidity level, leverage position, or strategic approaches, illustrating the nuanced dimensions that contribute to the overall uniqueness of the firm. Firm attributes entail the granular details that define a company's identity, ranging from its mission and vision statements to its core values, branding strategies, and market positioning. These specifics serve as the building blocks that construct the narrative of the firm, shaping its identity in the eyes of stakeholders (Jeroh, 2020). Furthermore, firm characteristics encompass a broad spectrum of qualities that go beyond financial metrics. The attributes of the firm provide a holistic view of the firm, capturing not only its economic performance but also its societal impact and ethical standing.

2.1.2 Firm Leverage

Firm leverage pertains to the combination of equity and liabilities employed by a company to finance its assets (Nworie, Obi, Anaike &Uchechukwu-Obi, 2022). In the process of financing investments, a company has the option to utilize debt, equity, and, in certain cases, preference capital. Notably, the interest rate on debt remains fixed, irrespective of the company's rate of return on assets. The primary objective of employing financial leverage is to generate earnings on the fixed charge funds that surpass their costs. As a company increases its debt, the level of financial leverage also rises (Bhat, Chanda & Bhat, 2023). The repercussions of financial leverage are felt on the earnings of ordinary shareholders. Companies strategically embrace financial leverage to augment shareholders' returns, especially in favorable economic conditions (Niu, Wang &Su, 2023). The underlying assumption is that obtaining fixed-charge funds, such as loans from financial institutions or debentures, can be achieved at a cost lower than the firm's rate of return on net assets.

Furthermore, leverage is characterized as a metric indicating how much a firm relies on equity and debt to fund its assets (Danladi & Alhassan, 2022). Consequently, firm leverage mirrors the amount of debt integrated into the capital structure of the firm. There is a prevalent belief that an

increase in leverage within the capital structure contributes to an elevation in the firm's overall value and the market price of its shares. This strategic use of leverage in financial decision-making underscores its significant role in shaping a company's capital structure and influencing its overall financial performance and market standing (Maigoshi & Tanko, 2023).

2.1.3 Firm Liquidity

Firm liquidity refers to the extent to which a company possesses readily accessible assets and resources that can be quickly converted into cash or used to meet short-term financial obligations (Nworie & Agwaramgbo, 2023). It is a crucial financial metric that gauges a company's ability to cover its immediate liabilities and withstand unexpected financial challenges without compromising its operational continuity (Lee, 2023).

Liquidity is typically associated with the availability of cash and assets that can be easily converted into cash, such as short-term investments and accounts receivable. Maintaining adequate liquidity is essential for businesses to meet their day-to-day financial commitments, including paying suppliers, meeting payroll, and settling short-term debts (Sani, 2023). It acts as a financial safety net, providing a buffer against unforeseen expenses or fluctuations in cash inflows. The liquidity of a firm is often assessed using liquidity ratios, such as the current ratio and quick ratio, which provide insights into its ability to meet short-term obligations. A higher liquidity ratio generally indicates a better capacity to cover short-term liabilities (Joseph & Adelegan, 2023).Maintaining an optimal level of liquidity is a delicate balance for businesses. Excessive liquidity might imply underutilized resources, leading to missed investment opportunities, while insufficient liquidity can expose a company to financial risks (Nworie & Agwaramgbo, 2023). Effective liquidity management is a key aspect of financial stewardship, ensuring that a firm remains resilient and adaptable in the face of changing market conditions and unforeseen challenges.

2.1.4 Firm Size

Firm size encompasses the cumulative assets utilized by a company in its operational activities (Ogbeide, Anyaduba & Akogo, (2022). This variable is derived as the natural logarithm of the total assets held by the firm. Additionally, firm size is indicative of the scope and diversity of production capabilities, as well as the range of services it can presently provide to its customers. The magnitude of a firm's size holds paramount importance in assessing the company's performance, chiefly due to the principle of economies of scale embedded in the traditional neoclassical perspective of a firm (Aladesonkanmi, 2020). In the competitive business environment, large-sized firms wield greater competitive prowess when juxtaposed with their smaller counterparts. Moreover, firms of substantial size possess the capability to capitalize on

diverse business opportunities during times of competition that necessitate significant capital investments. This advantageous position emanates from their access to extensive resources, providing them with enhanced opportunities to maximize profits within the competitive milieu (Nworie & Mba, 2022). In essence, the size of a firm is not merely a quantitative metric but a determinant that influences its competitive strength, resource availability, and overall capacity to thrive in dynamic market conditions.

Firm size serves as a metric classifying a company as either large or small. This classification is typically determined based on the total assets held or the total sales generated by the company. Assets, defined as economic resources under the control of an entity, possess a cost (or fair value) that can be objectively measured at the time of acquisition. Firm size can be quantified using either the natural logarithm of total assets or the natural logarithm of total sales (Aladesonkanmi, 2020). In this research study, the natural logarithm of total assets was chosen by the researcher due to the comprehensive nature of total assets, representing all resources acquired by the company through past transactions, with the potential to yield economic benefits in the future.

2.1.5 Tax Planning

Tax planning is a strategic financial management process undertaken by individuals or businesses to optimize their tax liabilities within the legal framework (Kibiya & Aminu, 2019). It involves making informed decisions on various aspects such as income, expenses, investments, and business structures to minimize the overall tax burden. The primary goal of tax planning is to ensure compliance with tax regulations while maximizing tax efficiency (Tanko, 2023). This process often includes leveraging deductions, credits, and exemptions provided by tax laws, as well as strategic financial maneuvers to achieve the most favorable tax outcome. Effective tax planning is essential for individuals and businesses alike to enhance financial well-being and sustainability (Maigoshi & Tanko, 2023). Businesses engage in tax planning to enhance their profitability by reducing corporate tax liabilities. This may include structuring business transactions in a tax-efficient manner, utilizing available tax credits and incentives, and exploring opportunities for international tax planning. Business owners may also consider the most advantageous business structure, taking into account factors such as the size of the company, industry regulations, and future growth plans (Jaffar, Derashid & Taha, 2021).

Investment-related tax planning is a critical component, as it focuses on optimizing returns while minimizing the tax impact on investment gains. This may involve selecting tax-advantaged investment accounts, strategically timing capital gains and losses, and utilizing tax-efficient

investment strategies to enhance after-tax returns. In essence, tax planning is an ongoing and dynamic process that requires careful consideration of individual circumstances and changing tax laws. By taking a proactive approach, individuals and businesses can position themselves to achieve financial success while mitigating the impact of taxes on their wealth and income. Engaging with experienced tax professionals, staying informed about tax law changes, and regularly reviewing financial strategies are integral parts of a robust tax planning framework (Lawal, 2021; Aladesonkanmi, 2020).

2.1.6 Book-Tax Difference

Book-tax differences refer to variations between a company's financial statements (book income) and its taxable income reported to tax authorities (Hepfer, 2023). These differences arise due to variations in accounting rules and tax regulations. Companies often maintain separate sets of records for financial reporting and tax purposes, leading to disparities in the recognition of income, expenses, and other financial elements. Book-tax differences can result from items such as depreciation methods, recognition of revenue, and the treatment of certain expenses. Understanding and analyzing these differences are crucial for accurate financial reporting, tax compliance, and strategic decision-making. Effective management of book-tax differences requires a comprehensive understanding of both accounting principles and tax regulations (Wahab & Holland, 2015).

Book-tax differences represent a crucial aspect of tax planning as they embody intentional strategic decisions made by individuals or businesses to optimize their taxable income within the legal framework (Blaylock, Shevlin & Wilson, 2012). These differences arise due to variations in accounting standards and tax regulations, providing opportunities for entities to strategically manage their financial reporting to achieve favorable tax outcomes (Tang & Firth, 2011). By leveraging permissible accounting methods and recognizing income, expenses, and deductions differentially for financial reporting and tax purposes, entities can influence their taxable income, ultimately minimizing their overall tax liability. Effectively addressing book-tax differences requires a meticulous understanding of accounting principles and tax regulations, allowing entities to align their financial reporting practices with tax planning strategies for optimal fiscal outcomes (Jackson, 2015).

2.2 Theoretical Review

2.2.1 Agency Theory

The study tangentially provides a backdrop for the context of agency theory, a framework that elucidates the dynamics of the relationship between principals and agents within a firm (Hanlon & Heitzman, 2010). The crux of agency theory lies in the inherent conflicts of interest that arise due to the separation of ownership and control between a firm's management and owners (Bauer & Kourouxous, 2018). Within this framework, it is posited that the management, possessing more information than shareholders, may pursue aggressive decision-making strategies. In essence, agency theory contends that the disconnect between ownership and management fosters conflicts of interest, resulting in a diminution of value for shareholders. The nature of these conflicts can significantly influence the behavior of tax planning. For instance, if shareholders opt to incentivize managers with performance bonuses, managers might be inclined to manipulate income distribution to sustain these bonuses, making tax planning an avenue for income manipulation. This perspective finds support in the work of scholars such as Lanis and Richardson (2012).

By integrating corporate governance into the analysis, these studies seek to unravel how the governance structure of a firm, influenced by the principles of agency theory, shapes the strategic decisions, including tax planning, undertaken by the management. This nuanced approach acknowledges the intricate interplay between agency dynamics, corporate governance, and tax planning behavior within the organizational landscape. Tax planning serves as a reflection of management's interests as it involves the deliberate reduction of a company's profit. This intentional reduction can distort information presented in financial reports, creating the potential for information asymmetry between the company and its stockholders (Napitupulu, 2019). Within the realm of financial reporting decisions, a firm's tax decisions emerge as a crucial area where the perspectives of both management and shareholders are manifested. The process of making tax decisions is inherently influenced by the divergent interests of management and shareholders (Evana, 2019; Zemzem&Ftouhi, 2013).

Management's interests, according to Evana (2019), are often aligned with increasing compensation through higher profits, while shareholders aim to limit income tax expenses by paying accrued taxes and bolstering the firm's stock price. This inherent conflict of interest between management and shareholders significantly influences decision-making processes, particularly in areas crucial to a firm's performance, such as tax policies.

In this context, numerous studies have explored the intricate relationships between tax avoidance and agency problems (Bauer & Kourouxous, 2018). The formulation of tax planning decisions relies on the decision-makers' careful consideration of trade-offs between tax avoidance yield and

associated costs. Consequently, management may engage in opportunistic activities, concealing certain transactions related to taxable income to maximize the gap in both conflict of interest and information asymmetry between management and shareholders (Desai & Dharmapala, 2006). This deliberate manipulation of information reflects the nuanced interplay between management's pursuit of self-interest and the shareholders' quest for a favorable financial position, underscoring the complexity inherent in tax planning decisions within an organizational context.

2.3 Empirical Review

Tanko (2023) examined the impact of financial attributes on corporate tax planning in listed manufacturing firms in Nigeria. Data were sourced from annual reports of sampled manufacturing firms and analyzed using the panel data methodology. The study employed fixed effect estimation for interpreting the parsimonious model and random effect for the moderated model. The results indicated a positive and significant influence of financial leverage on tax planning, while firm growth exhibited a negative and significant impact on the tax planning of these listed manufacturing firms.

Maigoshi and Tanko (2023) analyzed the tax planning strategies of publicly listed manufacturing companies in Nigeria from 2012 to 2022, considering the moderating role of real earnings management (REM). Utilizing data from annual reports of 41 publicly listed manufacturing firms, the study employed a correlational design with panel data analysis, revealing that financial leverage positively and significantly affects tax planning. Moreover, REM was found to have a positive and significant influence on tax planning, acting as a significant moderator in the relationship between financial attributes and tax planning. The recommendation emphasizes ethical and legal tax planning practices aligned with relevant regulations.

Ogbeide, Anyaduba, and Akogo (2022) examined the impact of firm attributes on tax aggressiveness in Nigeria, employing a longitudinal research design focused on 13 listed commercial banks. Utilizing panel data regression techniques and evaluating forecast abilities with MAPE and Theil's inequality coefficient, the findings revealed that firm size and complexity have a significant positive relationship with tax aggressiveness, while firm age and profitability exerted significant negative impacts on tax aggressiveness. These studies collectively underscore the nuanced dynamics of financial attributes and tax-related strategies in the Nigerian business landscape, providing valuable insights for both academia and industry practitioners.

Danladi and Alhassan (2022) conducted an examination into the impact of firm size, profitability, liquidity, and leverage on tax aggressiveness within the Nigerian banking sector. The study

encompassed a population of fourteen Deposit Money Banks (DMBs) listed on the Nigerian Stock Exchange as of December 31, 2021, with a sample size of ten banks selected through a judgmental technique based on those with international authorization. Utilizing secondary data collection methods from annual financial statements spanning five years (2017-2021), the research employed descriptive statistics and Ordinary Least Square (OLS) regression for analysis. The results revealed that firm size, leverage, and liquidity significantly influence tax aggressiveness, whereas profitability exhibited an insignificant effect within the Nigerian banking sector. The study concluded that firm characteristics serve as reliable indicators for predicting the extent of aggressive tax planning in this sector, recommending that tax policy initiatives should concentrate on asset expansion and value creation.

In a separate study, Jaffar, Derashid, and Taha (2021) investigated the prevalence of aggressive tax planning (ATP) among companies listed in the Access, Certainty, Efficiency (ACE) Market of Bursa Malaysia. This research further explored the relationship between company characteristics, ethnicity, and ATP using a balanced pooled sample of 105 firm-year observations from 2014 to 2018. The study drew data from DataStream and annual reports. The findings highlighted a significant relationship between profitability and financial distress with ATP, while variables such as size, capital intensity, inventory intensity, leverage, and ethnicity were not identified as determinants of ATP. This study contributes novel insights into the ACE Market in Malaysia, shedding light on the attitudes of small firms toward ATP and providing valuable information for understanding the dynamics of tax planning behaviors in this market.

Lawal (2021) ascertained the determinants of aggressive corporate tax planning within listed manufacturing companies in Nigeria. The specific objectives of the study were fourfold: (i) to assess the influence of earnings management practices on aggressive corporate tax planning; (ii) to investigate the impact of tax practitioners on aggressive corporate tax planning; (iii) to explore the extent to which a firm's capital intensity influences aggressive corporate tax planning; and (iv) to ascertain the influence of a firm's leverage on aggressive corporate tax planning. Employing an Ex-post facto research design, the study encompassed a population of seventy-four listed manufacturing companies, with a sample size of fifty-five selected across seven sectors. The analysis utilized Descriptive Statistics and Robust Least Square (RLS) Estimation Techniques on data collected from the annual reports and accounts of the sampled companies spanning five years (2015-2019). The findings indicated that earnings management practices significantly and positively influence aggressive corporate tax planning, revealing that managers engage in minimizing taxes aggressively through financial reporting mechanisms. Additionally, the study highlighted a positive and significant effect of the use of tax experts on aggressive corporate tax

planning. However, firm leverage and capital intensity were found to have a negative and significant influence on aggressive corporate tax planning among listed manufacturing companies in Nigeria.

Aladesonkanmi (2020) examined the impact of firm characteristics on tax planning within the Nigerian Listed Deposit Money Banks (DMBs). Specifically, the study assesses the effects of profitability, leverage, firm age, and firm size on tax planning in these Nigerian DMBs. Employing an ex-post facto research design, the study focuses on a population of fifteen DMBs listed on the Nigerian Stock Exchange as of December 31, 2018, with a sample size of twelve selected based on data availability. Secondary data from twelve annual reports and accounts spanning seven years (2012-2018) were subjected to panel data regression analysis. The findings reveal that profitability, firm age, and firm size significantly impact tax planning, while leverage exhibits an insignificant effect on tax planning in Nigerian DMBs. The study concludes that profitability, firm age, and firm size play influential roles in shaping the tax planning system within Deposit Money Banks in Nigeria. Recommendations include encouraging Nigerian listed DMBs to maximize asset utilization for higher returns and leveraging tax planning opportunities by engaging professionals to navigate tax laws effectively.

Panda and Nanda (2020) investigated the determinants of the effective tax rate (ETR) for Indian manufacturing firms across different sectors. Employing the Arellano–Bond dynamic panel regression model and the impulse response functions of the panel vector auto-regression model, the study identifies key drivers of ETR and analyzes the response of ETR due to shocks in its determinants. The study concludes that ETR is significantly influenced by firm size, profitability, growth rate, and non-debt tax shield across most sectors, while debt ratio, asset tangibility, and firm age impact ETR differently across sectors. In the entire manufacturing sector, firm size, profitability, growth, and non-debt tax shield drive ETR positively, whereas asset tangibility influences ETR negatively. Interest coverage ratio (ICR) and firm age do not emerge as significant drivers of ETR. Notably, ETR responds positively to immediate shocks in firm size but negatively to shocks in asset tangibility.

Abdulkadir, Issa, and Yunusa (2020) explored the impact of firm-specific attributes on corporate tax aggressiveness among listed manufacturing companies in Nigeria. Firm attributes, including profitability, leverage, capital intensity, firm growth, and firm size, were measured, while corporate tax aggressiveness was proxied using the effective tax rate (ETR). Applying robust fixed effect regression to data obtained from the annual reports of 48 listed manufacturing companies on the Nigeria Stock Exchange from 2015 to 2019, the study draws on agency theory and political

cost theory. The findings reveal that leverage and capital intensity significantly and positively influence corporate tax aggressiveness, whereas profitability exhibits a significant negative influence. However, firm size and firm growth were found to have an insignificant relationship with corporate tax aggressiveness. Diagnostic tests were conducted to ensure the robustness of the results, providing insights into the nuanced dynamics of corporate tax behavior in the Nigerian manufacturing sector.

Yahaya and Yusuf (2020) conducted a comprehensive analysis of company characteristics and aggressive tax avoidance within Nigerian listed insurance companies, evaluating the impact of firm size, profitability, leverage, and firm age on aggressive tax avoidance. Utilizing an ex-post facto research design, data were extracted from the audited annual reports of a random sample of twenty listed insurance companies between 2010 and 2018. The study employed a two-step system GMM panel model estimator for model estimation. Results indicated that firm size and leverage had a positive and significant impact on aggressive tax avoidance, while firm profitability and age exhibited a negative and significant effect. Specifically, firm size and leverage positively influenced aggressive tax avoidance in Nigerian listed insurance companies, whereas firm profitability and age had a negative impact on aggressive tax avoidance. The study concluded that company characteristics play a pivotal role in influencing aggressive tax avoidance among insurance companies in Nigeria.

Kibiya and Aminu (2019) examined the impact of firms' attributes on the tax planning of listed conglomerate firms in Nigeria. Employing a correlational research design, the study focused on five out of six listed companies in Nigeria, extracting data from their annual reports and accounts for a period of 12 years (2006-2017). Multiple regressions were utilized for the statistical analysis, revealing a negative and significant impact of profitability (proxied by return on assets), Tobin's Q, and firm growth on tax planning (proxied by the effective tax rate). The study concluded that firms with higher return on assets and value experience a lower tax burden. The recommendation emphasizes that companies' management should cultivate an in-depth understanding of tax laws to capitalize on opportunities that reduce tax liability, thereby enhancing returns and value.

3. MATERIAL AND METHOD

The study used the ex-post facto research design. An ex-post factostudy is one in which the data collected cannot be manipulated because the events studied have taken place already in the past (Cooper & Schindler, 2005). According to Nigerian Exchange Group's factsheet (2022), there are thirteen (13) publicly-listedindustrial goods firms in Nigeria. The population of the study is shown below in Table 1.

Table 1 Population of the Study

1. Austin Laz & Company Plc.
2. Berger Paints Plc.
3. Beta Glass Plc.
4. Bua Cement Plc.
5. Cap Plc.
6. Cutix Plc.
7. Dangote Cement Plc.
8. Greif Nigeria Plc.
9. Lafarge Africa Plc.
10. Meyer Plc.
11. Notore Chemical Ind. Plc.
12. Premier Paints Plc.
13. Tripple Gee And Company Plc.

Source: NGX Factsheet (2022)

The study used purposive sampling to select eight(8) out of thirteen companies that were listed on the NGX. The chosen firms were required to have submitted their financial reports to the NGX for the time period between 2013 and 2022. All of the companies that fit the criteria were included in the study and are Berger Paints Plc., Beta Glass Plc., Cap Plc., Cutix Plc., Dangote Cement Plc., Greif Nigeria Plc., Lafarge Africa Plc., and Tripple Gee and Company Plc.The study utilised secondary data collected from the financial statements of selected manufacturing firms spanning from 2013 to 2022, resulting in a historical data timeframe of 10 years. Table 2 shows the operational measurement of the variables of the study.

Table 2 Operational Measurement of Variables

Variable	Type	Operational Definition
1) Firm leverage	Independent	Liabilities/Total asset
2) Firm liquidity	Independent	Current asset/Current liabilities
3) Firm size	Independent	Natural log of total asset
4) Book tax difference	Dependent	Profit Before Tax $-$ $\dfrac{\text{current tax expense}}{\text{Statutory tax rate}}$

Source: Researcher's Compilation, 2024

The regression function below was deployed.

$$BTD_{it} = \alpha_0 + \beta_1 LEV_{it} + \beta_2 LIQ_{it} + \beta_3 SIZ_{it} + \mu_{it} \dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where,

BTD = Book-tax difference

LEV = Firm leverage

LIQ = Firm liquidity

SIZ = Firm size

α_0 = Intercept

$\beta_1 - \beta_3$ = are the parameters to be estimated in the equation

i = firm

t= period

The study employed descriptive analysis to provide a detailed description of the research variables. Panel least square regression was used in testing the hypotheses.

3.1 Decision Rule

In the process of hypothesis testing, the acceptance of the null hypothesis (H0) occurs when the calculated p-value equals or exceeds the chosen level of significance, commonly set at 5% or 0.05. Conversely, the rejection of the null hypothesis in favour of the alternative hypothesis takes place when the p-value is less than the specified level of significance. The acceptance of the alternative hypothesis signifies that the observed effect is considered significant, while the acceptance of the null hypothesis implies that the effect is deemed insignificant.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

The descriptive statistical analysis is shown below.

Table 3 Descriptive Analysis

	BTD	LEV	LIQ	SIZ
Mean	0.000936	0.464898	1.575618	7.155170
Median	0.001658	0.413430	1.556960	6.698352
Maximum	0.740679	2.229656	3.492682	9.424631
Minimum	-1.808517	0.194872	0.342954	5.239405
Std. Dev.	0.244836	0.241201	0.652627	1.167561
Skewness	-4.907385	5.085529	0.584698	0.577379
Kurtosis	40.04824	37.20309	3.598295	2.089772
Jarque-Bera	4896.338	4244.340	5.751471	7.206604
Probability	0.000000	0.000000	0.056375	0.027234
Sum	0.074843	37.19186	126.0495	572.4136

Sum Sq. Dev.	4.735630	4.596048	33.64783	107.6926
Observations	80	80	80	80

Source: Analysis Output from Eviews 12

The mean Book-Tax Difference (BTD) is 0.000936, suggesting that, on average, there is a minimal difference between the book and tax incomes of the listed industrial goods firms in Nigeria. The skewness of -4.907385 indicates a highly skewed distribution, leaning towards negative values, signifying that there might be a prevalence of negative BTD values. The kurtosis value of 40.04824 is exceptionally high, indicating heavy tails and a significant departure from a normal distribution. The probability of Jarque-Bera being 0.000000 further reinforces the departure from normality, indicating that the distribution of BTD is not normally distributed.

The mean value of firm leverage (LEV)is 0.464898, suggesting an average leverage level for the listed industrial goods firms in Nigeria. The skewness of 5.085529 indicates a highly skewed distribution towards positive values, suggesting a potential presence of extreme positive values in the data. The kurtosis value of 37.20309 is high, indicating heavy tails in the distribution. The probability of Jarque-Bera being 0.000000 confirms the departure from normality in the distribution of firm leverage.

The mean value of firm liquidity (LIQ) is 1.575618, indicating a moderate average liquidity level for the listed industrial goods firms. The skewness of 0.584698 indicates a slightly skewed distribution, and the kurtosis value of 3.598295 suggests moderately heavy tails. The probability of Jarque-Bera being 0.056375 indicates that while there might be a departure from normality, it is not as pronounced as in the case of BTD and LEV.

Firm size (SIZ) averaged 7.155170. The skewness of 0.577379 indicates a slightly skewed distribution, and the kurtosis value of 2.089772 suggests moderately heavy tails. The probability of Jarque-Bera being 0.027234 suggests a departure from normality, though less pronounced than in the case of BTD and LEV.

4.2 Test of Hypotheses

Panel least square regression was used in testing the hypotheses at 5% level of significance. The regression output is shown below in Table 4.

Table 4 Regression Output

Dependent Variable: BTD

Method: Panel Least Squares

Date: 01/01/24   Time: 08:34

Sample: 2013 2022

Periods included: 10

Cross-sections included: 8

Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEV	-0.883356	0.090994	-9.707809	0.0000
LIQ	-0.049591	0.033492	-1.480674	0.1428
SIZ	-0.027468	0.019988	-1.374209	0.1734
C	0.686282	0.208650	3.289157	0.0015

R-squared	0.625474	Mean dependent var		0.000936
Adjusted R-squared	0.610690	S.D. dependent var		0.244836
S.E. of regression	0.152765	Akaike info criterion		-0.871128
Sum squared resid	1.773618	Schwarz criterion		-0.752027
Log likelihood	38.84511	Hannan-Quinn criter.		-0.823377
F-statistic	42.30766	Durbin-Watson stat		1.914180
Prob(F-statistic)	0.000000			

Source: Analysis Output from Eviews 12

The adjusted R-squared value of 0.610690 indicates that the independent variables (firm leverage, firm liquidity, and firm size) collectively explain approximately 61.07% of the variation in the dependent variable, which is the book-tax difference (BTD). This suggests a relatively strong explanatory power of the model. The adjusted R-squared is a modified version of the R-squared that adjusts for the number of predictors in the model, providing a more accurate measure of the model's goodness of fit.

The F-statistic of 42.30766 is associated with a p-value of 0.000000, which is less than the significance level of 0.05. This low p-value indicates that at least one of the independent variables in the model has a statistically significant effect on the dependent variable. In other words, there is strong evidence to accept the null hypothesis that all coefficients are different from zero. The Durbin-Watson statistic of 1.914180 is used to test for the presence of autocorrelation in the residuals (errors). The statistic ranges from 0 to 4, where a value close to 2 suggests no autocorrelation. In this case, the value of 1.914180 indicates a slight positive autocorrelation, although it is not far from the ideal value of 2. The coefficients associated with each variable provide insights into their respective effects on the book-tax difference (BTD).

4.2.1 Hypothesis I

H_o: Firm leverage does not have a significant effect on the book-tax difference of listed industrial goods firms in Nigeria.

The coefficient for firm leverage is -0.883356, and the associated probability (Prob.) is 0.0000. This implies a statistically significant negative relationship between firm leverage and the book-tax difference. As firm leverage decreases, the BTD tends to increase. This suggests that firms with lower leverage might engage in tax planning strategies that result in a larger variance between their book income and taxable income.Therefore, we accept the alternate hypothesis that firm leverage has a significant negative effect on the book-tax difference for listed industrial goods firms in Nigeria (p<0.05). This result aligns with the findings by Lawal (2021) but contradicts the findings byTanko (2023); Maigoshi and Tanko (2023); Abdulkadir, Issa, and Yunusa (2020) and Yahaya and Yusuf (2020).

4.2.2 Hypothesis II

H_o: Firm liquidity does not have a significant effect on the book-tax difference of listed industrial goods firms in Nigeria.

The coefficient for firm liquidity is -0.049591, and the associated probability is 0.1428. Although the coefficient is negative, indicating a potential negative relationship, the result is not statistically significant at conventional significance levels (p > 0.05). Therefore, we accept the null hypothesis that firm liquidity has a non-significant negative effect on the book-tax difference for listed industrial goods firms in Nigeria (p>0.05). This finding contradicts that ofDanladi and Alhassan (2022) which found a positive effect in the Nigerian banking sector.

4.2.3 Hypothesis III

H_o:　　Firm size does not have a significant effect on the book-tax difference of listed industrial goods firms in Nigeria.

The coefficient for firm size is -0.027468, and the associated probability is 0.1734. Similar to firm liquidity, the negative coefficient suggests a potential negative relationship between firm size and the book-tax difference. However, the result is not statistically significant at 5% significance level.Therefore, we accept the null hypothesis that firm size has a non-significant negative effect on the book-tax difference for listed industrial goods firms in Nigeria ($p>0.05$). This result is supported by Abdulkadir, Issa, and Yunusa (2020) but is inconsistent with those found by Ogbeide, Anyaduba, and Akogo (2022); Danladi and Alhassan (2022); Panda and Nanda (2020); Yahaya and Yusuf (2020).

CONCLUSION AND RECOMMENDATIONS

In the realm of corporate finance and taxation, understanding the nexus between corporate firm attributes and tax planning is paramount for both businesses and policymakers. This study examined the specific context of listed industrial goods firms in Nigeria, investigating the effects of firm leverage, firm liquidity, and firm size on the book-tax difference—a crucial metric reflecting the variance between financial accounting income and taxable income. The observed negative effect of firm leverage on the book-tax difference implies that as leverage increases, the variance between financial accounting income and taxable income decreases. This finding could be attributed to the influence of debt financing on interest deductions. Higher leverage often results in increased interest expenses, which can serve as a deductible expense, consequently reducing taxable income. Firms with substantial leverage may strategically structure their financial operations to capitalize on interest deductions, aligning with tax planning efforts to minimize overall tax liabilities.

The negative and insignificant correlation between firm liquidity and the book-tax difference suggests that more liquid firms tend to have a smaller gap between financial accounting income and taxable income. This outcome may be linked to the conservative tax planning strategies of firms with ample liquidity. Such companies may prioritize minimizing tax risks and maintaining strong liquidity positions, leading them to adopt accounting practices that align more closely with tax regulations. Additionally, highly liquid firms may be better positioned to invest in tax-efficient assets, further contributing to the reduction in the book-tax difference.

The finding that firm size has a negative but insignificant effect on the book-tax difference indicates that larger industrial goods firms in Nigeria tend to exhibit a smaller variance between financial accounting income and taxable income. This could be attributed to the increased

visibility and scrutiny larger firms face from tax authorities and stakeholders. Large firms often employ sophisticated tax planning strategies, benefiting from dedicated tax departments and resources. Additionally, these companies may face greater regulatory oversight, compelling them to adopt conservative accounting practices to align with tax regulations and minimize the risk of audits or disputes.

Based on the above findings, we recommends the following:

1. Managers of industrial goods firms in Nigeria should optimize tax planning strategies by leveraging increased debt financing, strategically structuring financial operations to capitalize on interest deductions and minimize overall tax liabilities for listed industrial goods firms in Nigeria.

2. Industrial goods firms should explore tax-efficient investment opportunities to strategically deploy excess liquidity, aligning financial objectives with tax planning goals.

3. Firms should enhance transparency and compliance by implementing robust internal controls and engaging specialized tax teams to ensure that tax planning strategies seamlessly align with regulatory requirements for larger industrial goods firms in Nigeria.

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PRESSURE AS A FRAUD RISK FACTOR FOR FRAUDULENT FINANCIAL REPORTING AMONG COMMERCIAL BANKS IN NIGERIA

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ABSTRACT:

The study examined the effect of pressure as a fraud risk factor for fraudulent financial reporting in Nigerian deposit money banks. It specifically evaluates the effect of pressure on fraudulent financial reporting of Commercial Banks (CBs). The ex post facto research design was adopted as the independent variables were studied in retrospect to seek possible and plausible relations. The population comprised all Commercial Banks listed on the Nigerian Exchange Group (NGX) as at the end of 2022. The final sample comprised 13 Commercial Banks purposively selected based on data availability. The study utilises secondary data from annual financial statements for the years 2012-2022. The data were analyzed using descriptive, i.e., mean, standard deviation, normality tests, et cetera. and inferential statistical analyses. The hypotheses were tested using the random effects model. The results showed a non-significant positive effect of pressure on fraudulent financial reporting in CBs (p>.05). Based on this the study recommends shareholders and managers should be effective in mitigating pressure.

1. INTRODUCTION

Financial statements are a medium of communication between the company and users of such information, using a report that explains the company's condition to users of financial statements and stakeholders, i.e., management, employees, investors, creditors, suppliers, customers, and the government without having to go to the company. Thus, the entity's financial performance for a given period is reported economically in the financial statement (Haqq & Budiwitjaksono, 2019). Financial statements should "give a thorough audited summary of the company's business and financial position", according to the US Securities and Exchange Commission (SEC) (Chen, 2016). However, managers may resort to the intentional manipulation of financial statements described by the Association of Certified Fraud Examiners as financial statement fraud (ACFE,

2022). According to Puspitha and Yasa (2018), it is a purposeful accounting manipulation intended to deceive users of financial statements. It is generally difficult to detect and is also referred to as one of the costliest types of fraud (Antawirya, Putri, Wirajaya, Suaryana, & Suprasto, 2019).

Fraudulent financial reporting is intentionally done to deceive the users of such reports; such as investors/shareholders; employees; lenders; suppliers; customers; government and the general public. The fraud diamond is an extension of the theory of the fraud triangle. Fraud diamond adds the element of the capability to the other three existing elements namely pressure, opportunity, and rationalization. The fraud triangle, put forth by Cressey in 1953, included three elements: pressure (i.e., presence of incentives/ pressure/ need to commit fraud), opportunity (i.e., a situation that opens opportunities to enable fraud), and rationalization (i.e., where the perpetrator seeks justification for his actions). From this, the fraud diamond was developed, with the addition of one more element, namely capability (Wolfe & Hermanson, 2004). The possibility of fraud is achieved if the managers have the technical skills to understand and exploit the weaknesses of the current internal controls (Yulistyawati, Suardikha, & Sudana, 2019). The fraud diamond evolved from the outcomes of several scams, particularly some of the multibillion-dollar ones. Several high-profile business failures, such as those of Enron, WorldCom, Cadbury, African Petroleum, Intercontinental Bank, and Afribank, among others (Vladu, Amat, & Cuzdriorean, 2017; Uwuigbe, Uwuigbe, & Daramola, 2014), were ascribed to fraudulent financial reporting that contained misleading financial information.

The Association of Certified Fraud Examiners (ACFE) (2020) states that fraud poses a tremendous threat to all organizations regardless of type and size globally. According to the ACFE Report to the Nations (2018), the estimated total occupational fraud between January 2016 and October 2017 is 2,690. In the recent ACFE Report (2022), financial statement fraud schemes were the least common but most costly accounting for a $593,000 median loss; while asset misappropriation schemes are the most common but least costly accounting for a $100,000 median loss. Firms that are publicly quoted seek to draw the interest of investors and potential investors by displaying financial statements that appear healthy and successful (Kristianti & Meiden, 2021). To achieve these goals managers may falsify their financial figures.

1.1 Objective of the Study

The main objective of the study is to examine the effect of pressure as a fraud risk factor for fraudulent financial reporting in Nigerian deposit money banks. The study specifically seeks to ascertain:

1. The effect of pressure on fraudulent financial reporting in deposit money banks.

1.2 Research Hypothesis

The hypothesis below was formulated in null form:

H_{o1}:   There is no significant effect of pressure on fraudulent financial reporting in commercial banks.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Fraudulent Financial Reporting

Fraud is a false representation of a fact that deceives and is designed to deceive another person so that the person will act on it to their or their legal detriment, whether by words or conduct, false or misleading allegations, or concealment of what should have been disclosed. Fraud is defined as any act, expression, omission, or concealment calculated to deceive another to his or her detriment, specifically a misrepresentation or concealment concerning some fact material to a transaction that is made with knowledge of its falsity and or reckless disregard of its truth or falsity and with the intent to deceive another and that is reasonably relied on by the other who is injured thereby (Abdullahi & Mansor, 2015). Types of fraudulent financial reporting include 1) Manipulation, forgery, or changes to accounting records or supporting documents relating to the financial statements prepared. 2) Intentional misrepresentations or omissions concerning events, transactions, or other important information in financial statements. 3) Deliberately misusing accounting principles related to the amount, classification, method of presentation, or disclosure in financial statements (Yulistyawati, Suardikha, & Sudana, 2019). According to the American Institute of Certified Public Accountants (2019), corporate fraud is fraudulent behaviour that causes errors in reporting material financial reports that are the subject of the audit. Fraud can be divided into fraud which occurs due to falsification of financial report reporting and fraud which occurs due to misuse of company assets. Activities included in the definition of corporate fraud usually include theft, corruption, conspiracy, embezzlement, money laundering, bribery, and extortion (Christian, Basri, & Arafah, 2019).

The US Committee of Sponsoring Organizations of the Treadway Commission [COSO] explains fraudulent financial statements as either intentional or reckless conduct based on false information or omissions that result in significantly misleading financial reports (American Institute of

Certified Public Accountants [AICPA], 2002). Han (2017) noted that financial statement fraud comprises deliberate misstatements or omissions of amounts or disclosures of financial statements to deceive financial statement users, outright falsification, alteration, or manipulation of material financial records, supporting documents, or business transactions, material intentional omissions or misrepresentations of events, transactions, accounts, or other significant information from which financial statements are prepared, deliberate misapplication of accounting principles, policies, and procedures used to measure, recognize, report, and disclose economic events and business transactions and also intentional omissions of disclosures or presentation of inadequate disclosures regarding accounting principles and policies and related financial amounts.

According to ACFE (2016), fraud is classified into six types:
1. providing false financial information;
2. misuse or misappropriation of corporate assets;
3. improper support or loans;
4. improperly acquiring assets or income;
5. improper circumvention of costs or fees; and
6. improper manipulation of financing by executives or board members.

A fraud may be classified based on the party committing the fraud such as an employee, a customer, a vendor, an investor/consumer, or the company management (Albrecht, Albrecht, & Albrecht, 2004). Chen (2016) summarized the four elements of fraud as: "(1) serious erroneous expressions of the nature of transactions, (2) knowingly violating rules, (3) the victim accepting a misstatement as fact; and (4) damage due to financial losses caused by the above three situations". Financial statement fraud is detrimental to many parties because when financial statement information does not reflect actual circumstances, it is no longer useful as a basis for decision-making (Apriliana & Agustina, 2017). This can be due to a failure to disclose significant information, overstating earnings, inflating assets, or inappropriate accounting procedures.

2.1.2 The Fraud Triangle Model

The fraud triangle consists of three conditions that are generally present whenever fraud occurs. They depicted their relationship with a pyramid. Albrecht, Albrecht, and Albrecht (2004) compared this theory to a fire, using the simple explanation of three elements that are necessary to cause a fire, which are (1) oxygen; (2) fuel; and (3) heat. Applying this similar concept that can cause a fire, fraud is unlikely to occur in the absence of the three elements mentioned in the fraud triangle theory, and the severity of fraud depends on the strength of each element (Albrecht,

Albrecht, & Albrecht, 2004). In other words, for an individual to make unethical decisions, perceived pressure, an opportunity, and a way to rationalize the behaviours must exist.

2.1.3 Pressure and Fraudulent Financial Reporting

According to Cressey (1953), financial statement fraud always involves pressure as a requirement. According to Skousen, Smith, and Wright (2009), there is a direct link between pressure and financial statement fraud. Managers frequently experience external pressure from third parties, such as the need to take on more debt or leverage to maintain their competitiveness (Akbar, 2017). When management is under extreme pressure to fulfil the demands or expectations of outside parties, this is referred to as external pressure (Nurbaiti & Hanafi, 2017). Management may feel under pressure to commit fraud by falsifying financial statements to acquire the necessary debt funding when the firm is facing financial difficulties (Rizani & Respati, 2018).

Pressure arises if a company's performance falls below the industry average and management may manipulate the company's financial statements by providing the appearance of stable growth (Skousen, Smith, & Wright, 2009). Some of the events that could lead to the pressure to commit fraud include the following:

i.   The incentive to misstate earnings

ii.   Family problems including marital and sickness

iii.   Inability to pay one's bill

iv.   Meeting of production target at work

v.   The desire for status symbols, houses, cars etc.

vi.   Gambling or drug addiction

vii.   Meeting of debt covenant

viii.   Stock option compensation

Studies by Achmad and Pamungkas (2018) and Rahman and Nurbaiti (2019), find that external pressure has an impact on fraudulent financial reporting (2019). However, in contrast, Rizani and Respati (2018) and Utami and Pusparini (2019) found no connection between pressure and false financial statements.

2.2 Theoretical Review

2.2.1 Fraud Triangle Theory

The Fraud Triangle Model was created by Dr Donald R. Cressey (1953), an American sociologist and criminologist. He focused his research on the circumstances that lead individuals to engage in fraudulent and unethical activity. According to Cressey, fraud is the result of a set of circumstances which come together at a particular time and place causing someone to become a fraud perpetrator, particularly a trusted employee. The theory introduces three categories of factors that may be

interrelated to represent these circumstances. These are pressure or incentives, opportunities, and rationalizations. Cressey (1953) described these three factors as the fraud triangle which involves:

1. **The motive or pressure to commit fraud**: This is perceived in the form of real or perceived financial needs or moral needs such as getting back at the employer. This individual feels that he wants to, or has a need to, commit fraud.

2. **The perceived opportunity to commit fraud and get away with it**: This arises as a result of these enabling factors: deficient internal controls and weak corporate governance. When one or two of these factors weigh(s) heavily in the direction of fraud, the probability increases.

3. **The rationalization of the perpetrator**: This is achieved through finding a morally acceptable excuse that justifies why their action is not considered a crime.

2.3 Empirical Review

Yunita, Wilopo, Oktarina, and Wonorejo (2023) undertook a study titled 'An analysis of pentagon fraud theory to detect fraudulent financial reporting (a case study at sub-sector transportation that listed in Indonesian Stock Exchange 2014-2018)'. The sample comprised 70 firm-year observations from mining companies listed on the Indonesia Stock Exchange from 2014 to 2018. The study relied on secondary data analysed using logistic regression. The results showed that the change of directors is significant in detecting the occurrence of fraudulent financial reporting. Others, such as financial targets, financial stability, external pressure, institutional ownership, industry nature, ineffective monitoring, quality of external auditors, change in auditor, and CEO duality variable have no significant influence in predicting fraudulent financial reporting.

Putri and Fadilah (2023) conducted a study titled 'Analisis Faktor–Faktor Fraud Diamond dan Ukuran Perusahaan terhadap Kecurangan Laporan Keuangan pada Perusahaan Sub Sektor Transportasi yang Terdaftar di Bursa Efek Indonesia Periode 2019-2021'. The factors tested in the study were pressure, opportunity, rationalization, capability and company size as the independent variables; while financial statement fraud was the dependent variable. The study used the correlational research method. The sample comprised 20 companies in the transportation sub-sector. The study utilized secondary data from the financial reports of the sample companies. The analytical method used was multiple linear regression analysis. The results showed that pressure, opportunity, rationalization, capability and company size have a significant effect on fraudulent financial reporting.

Nadia, Nugraha, and Sartono (2023) conducted a study titled 'Analisis Pengaruh Fraud Diamond Terhadap Kecurangan Laporan Keuangan Pada Bank Umum Syariah'. The study analysed the effect of fraud diamond variables, i.e., pressure, opportunity, rationalization, and capability on fraudulent financial statements. The data were collected from the financial reports of Islamic Commercial Banks in Indonesia for 2016-2021. The study employed purposive sampling of 48 firms analysed using multiple linear regression. The results showed that pressure and rationalization have a positive and significant effect on fraudulent financial statements; while opportunity and capability have a positive insignificant effect on fraudulent financial statements.

Muchran, Eka, and Hasan (2023) conducted a study titled 'Analisis Fraud Diamond Dalam Mendeteksi Finansial Statement Fraud pada Perusahaan Manufaktur di BEI Tahun 2018-2020'. The study employed purposive sampling and the sample comprised eleven companies. The pressure factor was determined based on financial stability, external pressures and financial goals. The opportunity factor was determined based on the nature of the industry and effective monitoring. Rationalization was supported by rationalization. Finally, the capability was proxied by using capability. This study used revenue management to identify the potential for fraudulent financial statements proxied using the F-Score indicator. The study period covered from 2018 to 2020. The results showed that financial stability, external pressures, financial goals, and type of industry had a significantly positive effect in detecting the potential for fraudulent accounts. The effective monitoring variable had no positive or significant effect in detecting fraudulent deals. Meanwhile, rationalization and skills did not have a significant negative impact on detecting the potential for fraudulent financial reports.

Agustina and Mariana (2023) undertook a study titled 'Analisis Fraud Diamond Dalam Mendeteksi Financial Statement Fraud'. The opportunity factor is proxied by using financial stability and external pressure. The pressure factor is proxied by using industrial properties and control effectiveness. The rationalization factor is proxied by rationality and auditor turnover. Finally, the ability factor is proxied by ability. The study employed the F-Score indicator to analyse fraudulent financial statements. The study employed a purposive sampling technique and 15 samples of companies. The study used secondary data and multiple linear regression to analyse the data. The results of financial stability and external pressure had a positive effect on fraudulent financial statements. Meanwhile, the nature of the industry, change in auditor, and capability do not affect the potential for fraudulent financial statements.

Nikmah and Arjoen (2023) conducted a study titled 'Financial statement fraud, audit committee and audit quality: Insight into fraud diamond theory'. The sample was selected using purposive sampling from 214 non-financial companies listed on the Indonesia Stock Exchange from 2016-2019. The study utilized secondary data obtained from www.idx.co.id and each company's website. The data were analysed using logistic regression. The result of this study showed that financial stability, board change, and financial targets positively affect the detection of fraudulent financial statements. In contrast, external pressure, ineffective monitoring, and auditor change do not affect the detection of fraudulent financial statements.

Deliana and Oktalia (2022) conducted a study titled 'Fraud detection of financial statements with diamond fraud analysis'. The sample comprised 12 companies which were purposively selected. The study relied on secondary data from 2016 to 2019. The study employed multiple linear regression analysis. The results of this study indicate that the level of leverage affects financial statement fraud. However, changes in total assets, ROA, insider share ownership, special party transactions, independent audit members, changes in the public accounting firm, and changes in the board of directors do not affect financial statement fraud.

Kristianti and Meiden (2021) conducted a study titled 'Fraud diamond analysis in fraudulent financial statement detection using Beneish M-Score'. The sample size comprised 120 firms using the purposive sampling method. The study relied on secondary data which were analysed using descriptive and logistic regression. The results showed that the nature of industry and rationalization variables have a positive and significant effect on the possibility of fraudulent financial statements, but for the variables of financial stability, external pressure, personal financial need, financial target, ineffective monitoring and capability, it is not proven to have a significant effect on the possibility of fraudulent financial statements.

Christian, Basri, and Arafah (2019) undertook a study titled 'Analysis of fraud triangle, fraud diamond and fraud pentagon theory to detecting corporate fraud in Indonesia'. The sample comprised 310 firms; and, the authors employed secondary data from annual reports which spanned from 2011 to 2017. The data were analysed using the OLS technique. The results showed that the fraud triangle, fraud diamond and fraud pentagon had a significant effect on corporate fraud.

Yulistyawati, Suardikha, and Sudana (2019) conducted a study titled 'The analysis of the factor that causes fraudulent financial reporting with fraud diamond'. The sample comprised 19

manufacturing companies listed on the IDX. The authors employed secondary data from the company's financial statements published on the official website of the Indonesia Stock Exchange. The data were analysed using the multiple regression technique. The results showed that pressure has a positive non-significant effect on F-Score; while capability had a negative non-significant effect on fraudulent financial reporting proxied as F-Score. The fraud diamond variables of opportunity and rationalization positively affected the fraudulent financial reporting.

Egolum, Okoye, and Eze (2019) examined the effect of the fraud pentagon model on fraud assessment in the deposit money banks in Nigeria (2005-2014). The multiple regression techniques were the main statistical tool used in the study. To verify the quality of the data used, the Variance Inflation Factor (VIF) was employed to test for multicollinearity among the variables. The result showed that the Behavioral Trait (BET) factor has a positive significant effect on fraud risk.

Achmad and Pamungkas (2018) conducted a study titled 'Fraudulent financial reporting based of fraud diamond theory: A study of the banking sector in Indonesia'. The sample comprised 87 banks listed in IDX. The study relied on secondary data from 2011 to 2016. The data were analysed using regression analysis. The results showed that incentives and financial targets have a positive effect on fraudulent financial reporting. Financial stability and capability have a negative impact on fraudulent financial reporting. However, other variables such as ineffective monitoring and rationalization do not affect fraudulent financial reporting.

Puspitha and Yasa (2018) utilized the fraud pentagon analysis to detect fraudulent financial reporting in Indonesia. The sample comprised non-financial firms. The study utilized secondary data from 2012 to 2016. The data were analysed using logistic regression analysis. The results prove that external pressure, ineffective monitoring, auditor switching, change of director, and the frequency of CEO pictures can predict fraudulent financial reporting. However, financial stability, personal financial needs, financial targets, the nature of the industry, and organizational structures do not predict fraudulent financial reporting.

Nindito (2018) analyzed financial statement fraud from the perspective of the fraud pentagon model. The sample comprised 14 companies listed on the Indonesia Stock Exchange that incurred sanctions from the Financial Services Authority, and 14 comparable companies as a control sample that were similar in both industry and size. The study utilized secondary data from 2013 to 2015. The data were analyzed using logistic regression analysis. The results show that free cash

flow as a proxy of pressure; independence of the audit committee as a proxy of opportunity, total accruals as a proxy of rationalization, and disclosure of doubtful debts as a proxy of capability have significant negative effects on financial statement fraud.

To identify fraudulent financial reporting, the components of the fraud triangle model: pressure, opportunity, and rationalization (Hanifa & Laksito, 2015; Fimanaya & Syaruddin, 2014; Manurung & Hadian, 2015) have been studied in the past. There is a varied gap on the subject of fraudulent financial reporting as compared to earlier studies. The Piotroski F-score model is used as a stand-in for focusing on the dependent variable in this study, which is the first to evaluate the fraud pressure from the standpoint of the fraud triangle among Deposit Money Banks. Lastly, prior studies do not exhaustively cover the period of post-IFRS adoption which is from 2012; for instance, Olatunde and Fasunle (2019) focused on 2006-2016 as such this study will seek to cover a more recent period of 2012-2022.

3. MATERIAL AND METHOD

The study adopted the ex post facto research design. The design is appropriate since the key independent variables are neither controlled nor altered and because their effects have previously been seen. In hindsight, independent variables are investigated to look for potential relationships and the likely consequences that changes in independent variables have on one or more dependent variables. The population of the study comprised fourteen (14) Deposit Money Banks listed on the Nigerian Exchange Group (NGX) as of the end of 2022.

Table 1: List of Commercial Banks

S/N	COMMERCIAL Banks in Nigeria
1	Access Bank PLC
2	Eco Bank Transnational incorporation
3	Fidelity Bank PLC
4	First Bank Nig. PLC
5	First City Monument Bank (FCMB) PLC
6	Guarantee Trust Bank (GTB) PLC
7	Skye Bank PLC
8	Stanbic IBTC Holding PLC
9	Sterling Bank Nig. PLC
10	United Bank for Africa (UBA) PLC
11	Union Bank of Nigeria PLC
12	Unity Bank PLC

| 13 | Wema Bank PLC |
| 14 | Zenith Bank PLC |

Source: The Nigerian Exchange Group [NGX] (2022)

The sample comprised thirteen (13) Deposit Money Banks (DMBs) listed in the Nigerian Exchange Group (NGX). the purposive sampling technique was employed, premised on the scope with a complete data set to ensure the homogeneity of the sample. The study utilized data drawn from secondary sources. The sources included the (13) annual financial reports and accounts of the individual deposit money banks for the years 2012-2022 downloaded from the websites of the companies and the Nigerian Exchange Group (NGX).

The data were analyzed using descriptive and inferential statistical analyses. The descriptive statistical analysis will be used to describe the research variables in the form of data mean, minimum, maximum, and standard deviation. The inferential statistical analysis used here is multiple regression analysis to test the proposed hypotheses.

The selected variables utilized in the study are described in the table below as follows below

Table 2: Description of input variables

Fraud diamond	Indicator	Measurement	Source
Pressure	Cash flow trend	Change in cash flow = average $CF_t – CF_{t-1}$	Lokanan & Sharma (2018); Skousen et al. (2009)
	Non- performing Loan and Advance	$\dfrac{\text{Non-performing loan}}{\text{Total loan}}$	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)
	Provision for Non-Performing Loan	$\dfrac{\text{Prov. for non-performing loan}}{\text{Total non-performing loan}}$	Egolum, Okoye, and Eze, (2019); Chen and Elder (2007)

Source: Author's compilation (2023)

The dependent variable in this study is fraudulent financial reporting, i.e., the intentional manipulation of financial statements done by management by altering the information in the financial accounts for personal advantage. The model-dependent variable as suggested by Piotroski F-score (2000) was used in the study by Muchran, Eka, and Hasan (2023) on a sample of firms listed on the Indonesia Stock Exchange. Piotroski F-score is a number between 0 and 9

which is used to assess the strength of a company's financial position. The score is named after Stanford accounting Professor Joseph Piotroski. The F-Score variables are as follows:

The score is calculated based on 9 criteria divided into 3 groups.

Profitability

1. Return on Assets (ROA) (1 point if it is positive in the current year, 0 otherwise);
2. Operating Cash Flow (1 point if it is positive in the current year, 0 otherwise);
3. Change in Return of Assets (ROA) (1 point if ROA is higher in the current year compared to the previous one, 0 otherwise);
4. Accruals (1 point if Operating Cash Flow/Total Assets is higher than ROA in the current year, 0 otherwise);

Leverage, Liquidity and Source of Funds

1. Change in Leverage (long-term) ratio (1 point if the ratio is lower this year compared to the previous one, 0 otherwise);
2. Change in Current ratio (1 point if it is higher in the current year compared to the previous one, 0 otherwise);
3. Change in the number of shares (1 point if no new shares were issued during the last year);

Operating Efficiency

1. Change in Gross Margin (1 point if it is higher in the current year compared to the previous one, 0 otherwise);
2. Change in Asset Turnover ratio (1 point if it is higher in the current year compared to the previous one, 0 otherwise);

A model was formulated for this study based on the objectives of the study to test each of the null hypotheses. The model used in this study was adapted from Yulistyawati, Suardikha, and Sudana (2019).

The original model is stated below as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where:

Y	= F-Score
α	= Constant
$\beta_1, \beta_2, \beta_3, \beta_4$	= Regression coefficient
X1	= Pressure
X2	= Opportunity
X3	= Rationalization
X4	= Capability

e = error

However, the implicit form of the model to be utilized in this study is stated below as follows:

FFR = f (PRE, OPP, RAT, CAP) …………….. eqn 1

This can be econometrically expressed as follows:

FFR $= \beta_0 + \beta_1 PRE_{it} + \beta_2 OPP_{it} + \beta_3 RAT_{it} + \beta_4 CAP_{it} + \mu$ …………….. eqn 2

Where:

FFR = Fraudulent Financial Reporting

PRE = Pressure

OPP = Opportunity

RAT = Rationalization

CAP = Capability

μ = Error term.

β_0 = is the constant

β_1, β_2, β_3, and β_4 represent the estimated coefficient for specific bank i at time t

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Each variable was examined based on the mean, median, maximum and minimum. Table 3 below displays the descriptive statistics for the study.

Table 3: Descriptive statistics of the model variables

	F_SCORE	PRE
Mean	5.272727	2.851219
Median	5.000000	-0.561419
Maximum	6.000000	279.9039
Minimum	4.000000	-44.22827
Std. Dev.	0.519775	25.98409
Skewness	0.237071	8.879458
Kurtosis	2.521248	93.05263
Jarque-Bera	2.705162	50198.10
Probability	0.258572	0.000000
Sum	754.0000	407.7243
Sum Sq. Dev.	38.36364	95874.57

| Observations | 143 | 143 |

Source: E-Views 11

Key: F_SCORE-Piotroski F-score; PRE-Pressure

The mean of the F_SCORE of the sampled companies was 5.273 while its median value was 5. The maximum value of F_SCORE was 6 while the minimum was 4 indicating that at the lowest DMBs annual reports showed at least 4 Piotroski F-score in assessing the strength of the company's financial position. This, therefore, means that DMBs with higher or equal to the average F_SCORE are considered high financial reporting while companies with a value below the average F_SCORE are low financial reporting. In the case of PRE which is a proxy of Pressure, the mean value of the sampled DMBs was 2.851 while its median value was -0.561. The maximum value was 279.903 while the minimum was -44.228. This, therefore, means that companies with a higher or equal to 2.851 experience higher pressure in the work environment while DMBs with a value below 2.851 are in the low-pressure work environment.

To measure symmetry of the distribution we use *skewness* and *kurtosis*: skewness is used to measure asymmetry in the distribution; kurtosis is used to find the presence of outliers in the data distribution. The skewness of F_SCORE (0.237) is positive, indicating that the data values are more on the right-hand side, and the left tail is spread out. The mean>median, i.e., 5.27>5.00 also confirms this. The distribution is positively skewed. The skewness of PRE (8.879) is positive, indicating that the data values are more on the right-hand side, and the left tail is spread out. The mean>median, i.e., 2.85>-0.56 also confirms this. The distribution is positively skewed. The kurtosis of F_SCORE was much more consistent with a normal distribution F_SCORE = 2.52. The evidence is supported by the Jarque-Bera statistics. The wider standard deviation, for the fraud diamond variables PRE was suggestive of more variability of the data points in the analysis with the F_SCORE having more clustering around the mean.

4.1.1 Correlation Matrix

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in the table below.

Table 4: Correlation analysis of the model variables

	F_SCORE	PRE
F_SCORE	1.0000	
PRE	0.2305	1.0000

Source: E-Views 11

Key: F_SCORE-Piotroski F-score; PRE-Pressure

The table above showed that F_SCORE positively correlated with PRE (0.230); since all the correlation coefficients were less than 0.80, according to the correlation matrix in Table 4. This indicates that the multicollinearity between them is not problematic. The VIF and tolerance values further confirm that all the study variables have relative scores that are less than five and greater than 0.10, indicating a satisfactory correlation. The fraud variables of PRE (Centered VIF=1.002) indicate no multicollinearity between IV and DV.

4.2 Test of Hypothesis

To test the hypotheses a random effects regression result was estimated since correlation analysis does not imply a cause-effect relationship. This model focuses on estimating the effect of fraud diamond elements on the F-Score of DMBs.

Table 5: Multiple linear regression output for the test of hypotheses

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.017155	0.153026	32.78635	0.0000
PRE	0.006059	0.003083	1.965647	0.0513
R-squared	0.961282	Mean dependent var		9.017611
Adjusted R-squared	0.960160	S.D. dependent var		4.759525
S.E. of regression	0.950004	Sum squared resid		124.5460
F-statistic	856.5558	Durbin-Watson stat		1.814021
Prob(F-statistic)	0.000000			

Source: E-Views 11

The F-statistic value of 856.5558 and its associated p-value of 0.000000 show that the regression model overall is statistically significant at a 1% level, this means that the regression model is valid and can be used for statistical inference. The regression R-squared value of 0.961 shows that about 96.1% of the variation in FFR was jointly explained by all the independent variables. The Adjusted R-squared is often preferred to account for sample size adjustments had a value of 0.960, i.e., 96.0% of the systematic variation in FFR were accounted for by the explanatory variables.

4.2.1 Hypothesis One

Ho_1: There is no significant effect of pressure on fraudulent financial reporting in deposit money banks.

PRE as an independent variable to FFR appears to have a positive (i.e., 0.006059) and non-significant influence on FFR at a 5% level of significance. This, therefore, implies that an increase in PRE will cause an increase in FFR. This evidence, therefore, leads to a rejection of the alternate

hypothesis and acceptance of the null; thus, there is no significant effect of pressure on fraudulent financial reporting in deposit money banks.

This is supported by Yunita, Wilopo, Oktarina, and Wonorejo (2023) in Indonesia showed that external pressure has no significant influence in predicting fraudulent financial reporting. Agustina and Mariana (2023) used a purposive sample of 15 companies proxied pressure factors by using industrial properties and control effectiveness. The multiple linear regression technique showed that the nature of the industry and capability do not affect the potential for fraudulent financial statements. Nikmah and Arjoen (2023) purposively sampled 214 non-financial companies listed on the Indonesia Stock Exchange from 2016-2019. The data were analysed using logistic regression. The result of this study showed that financial stability, board change, and financial targets positively affect the detection of fraudulent financial statements. Using a sample of 12 companies Deliana and Oktalia (2022) indicate that the level of leverage affects financial statement fraud.

However, Putri and Fadilah (2023) in Indonesia using a sample of 20 companies in the transportation sub-sector and multiple linear regression analysis showed that pressure has a significant effect on fraudulent financial reporting. Using a sample of 48 Islamic Commercial Banks in Indonesia for 2016-2021, the study by Nadia, Nugraha, and Sartono (2023) showed that pressure has a positive and significant effect on fraudulent financial statements. The study by Muchran, Eka, and Hasan (2023) using the F-Score indicator from 2018 to 2020 showed that financial stability, external pressures, financial goals, and type of industry had a significantly positive effect in detecting the potential for fraudulent accounts. Using a sample of 214 non-financial companies listed on the Indonesia Stock Exchange from 2016-2019, Nikmah and Arjoen (2023) utilized secondary data that were analysed using logistic regression. The result of this study showed that pressure does not affect the detection of fraudulent financial statements. Kristianti and Meiden (2021) from a sample of 120 firms using the purposive sampling method. The logistic regression results showed that external pressure, personal financial need, and financial target were not proven to have a significant effect on the possibility of fraudulent financial statements.

CONCLUSION AND RECOMMENDATIONS

This study concludes that pressure is a fraud risk factor for fraudulent financial reporting in Nigerian deposit money banks. The study employs data from deposit money banks from 2012 to 2022 to analyse the effect of the fraud diamond model on fraudulent financial reporting of quoted DMBs in Nigeria. The data were analysed using descriptive statistics, such as the mean, median, maximum and minimum; and, the hypotheses were tested using the multiple regression model after checking for REM and FEM. The study specifically finds that pressure positively relates to

fraudulent financial reporting of deposit money banks. The findings support the agency theory perspective of managers acting for personal gains against that of principals. The study makes the following recommendation for managers, shareholders and policymakers in the Nigerian context as follows:

1. Managers should be effective in mitigating pressure, one of the prominent causes of fraud. Pressure refers to the financial or emotional need that may drive an individual to commit fraud. By mitigating pressure, organizations can create a work environment that is less conducive to fraudulent behaviour. Ways to mitigate pressure include:

   Creating a positive and supportive workplace culture can help alleviate the financial or emotional pressures that employees may feel.

   Ensuring that employees are fairly compensated and have access to benefits can help reduce financial pressures that may lead to fraudulent behaviour. By addressing some of the underlying pressure factors, managers can help minimize the risk of fraudulent behaviour in Deposit Money Banks and promote ethical conduct.

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DIGITAL TRANSFORMATION AND ORGANIZATIONAL AGILITY IN POST COVID-19 PANDEMIC ERA

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ABSTRACT:

Amidst the global shifts brought by the COVID-19 pandemic, businesses are navigating a transformative landscape, compelling a paradigm shift towards digitalization. This abstract delves into the paramount role of digital transformation in the post-pandemic era, exploring facets of technological innovation, organizational adaptation, and cultural evolution. Synthesizing insights from scholarly sources, it investigates the rapid digital trends triggered by the pandemic and delves into challenges encountered by businesses in this transformative journey. Emphasizing the pivotal importance of digital transformation, the abstract underscores its contribution to enhancing resilience, navigating unforeseen challenges, improving customer experiences, and facilitating data-driven decision-making. Acknowledging inherent challenges, a well-defined digital strategy emerges as a determining factor for success. In navigating the evolving business landscape, this abstract seeks to provide a comprehensive understanding of the significance of digital transformation in fostering organizational agility and ensuring long-term success.

1. INTRODUCTION

In the wake of the global COVID-19 pandemic, businesses worldwide have experienced a seismic shift in their operational landscape, compelling them to reevaluate their strategies and embrace transformative changes. The term "digital transformation" has emerged as a beacon of resilience and adaptability during these unprecedented times. As organizations grapple with the aftermath of the pandemic, the imperative to adopt digital solutions becomes increasingly evident (Smith et al., 2021). This article delves into the critical role that digital transformation plays in navigating the challenges of the post-pandemic world, exploring its multifaceted impacts on businesses across various sectors.

Digital transformation is a holistic approach that extends beyond the mere integration of new technologies; it encapsulates a comprehensive restructuring of organizational processes and cultural norms (Jones & Brown, 2020). The accelerated pace of technological advancements during the pandemic has underscored the urgency for businesses to embark on this transformative journey. It is imperative to recognize that successful digital transformation is not solely contingent on technological investments but necessitates a cultural shift within the organization (Gupta & George, 2022). The post-pandemic era has witnessed an unprecedented acceleration of digital trends, with remote work, e-commerce, and digital communication becoming integral facets of the new normal (Chen et al., 2021). This acceleration has not only been driven by necessity but has also highlighted the intrinsic connection between digital adoption and organizational resilience. Businesses that have proactively embraced digital transformation have demonstrated a heightened capacity to adapt swiftly to unforeseen disruptions (Brown & Williams, 2020). Moreover, the importance of digital transformation extends beyond mere survival; it directly influences customer experiences in the contemporary marketplace. The ability to provide seamless and personalized services through omnichannel approaches has become a hallmark of businesses that prioritize digital initiatives (Lee & Lee, 2021). As customers increasingly engage with brands through digital platforms, organizations leveraging digital transformation gain a competitive edge in enhancing customer satisfaction and loyalty (Taylor et al., 2023).

In the subsequent sections, this article will delve into the myriad ways in which digital transformation contributes to organizational resilience, adaptability, and improved customer experiences in the post-pandemic world. Through insightful examples and analyses, we will

1.1 Objectives of the Study

Through insightful examples and analyses, the study intends to evaluate the data-driven decision-making processes and the challenges that businesses may encounter as it embraces digital transformation. The research intends to focus on the following objectives.

1. to assess the accelerated digital trends triggered by the global COVID-19 pandemic.
2. to appraise the challenges encountered by businesses during the process of digital transformation.
3. to highlight the role of digitalization in enhancing organizational resilience and adapting to unforeseen challenges.
4. to evaluate the contributions of digital transformation to improving customer experiences and facilitating data-driven decision-making in the post COVID-19 pandemic era.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Understanding Digital Transformation

Digital transformation is a comprehensive process involving the integration of digital technologies, organizational changes, and cultural shifts to enhance business operations and deliver value to stakeholders (Westerman et al., 2014). It goes beyond the mere adoption of new technologies, encompassing a holistic approach that reshapes business models, processes, and customer experiences. In the context of the post-pandemic world, where agility and resilience are paramount, understanding digital transformation becomes crucial for organizational survival.

Figure 1. Showing a diagram of the flow of digital transformation.
Source: (Adapted from Smith, J. et al., 2020)

The key components of digital transformation include the adoption of advanced technologies such as artificial intelligence, cloud computing, and the Internet of Things. These technologies serve as enablers for efficiency improvements, cost reductions, and innovation across various industries (Ross et al., 2019). However, it is essential to recognize that successful digital transformation extends beyond technological upgrades. Organizations must also address cultural and organizational aspects to foster a digital mindset and facilitate seamless integration (Bharadwaj et al., 2013). Several organizations have successfully navigated the complexities of digital transformation. For instance, Amazon's transformation from an online bookstore to a global e-commerce giant exemplifies how strategic technological investments and a customer-centric approach can drive business evolution (Helfat et al., 2007). Understanding these success stories

can provide valuable insights for businesses aiming to embark on their digital transformation journey.

Digital transformation is a multifaceted process that requires a strategic approach encompassing technology, culture, and organizational change. This understanding is crucial for organizations seeking to thrive in the post-pandemic era, where adaptability and innovation are paramount (Westerman et al., 2014).

2.1.2 The Acceleration of Digital Trends during the Pandemic

The onset of the global pandemic catalyzed an unprecedented acceleration of digital trends, reshaping the business landscape at an unparalleled pace. As lockdowns and social distancing measures became the norm, industries witnessed a surge in the adoption of digital technologies to sustain operations and meet evolving consumer needs (Smith, 2020). The rapid transition to remote work emerged as a prominent trend, with organizations leveraging collaboration tools and cloud technologies to maintain productivity (Jones et al., 2021).

Figure 2. Showing a digital shift and change of work mode.
Source: (Adapted from Smith, J. et al., 2020)

Electronic commerce (E-commerce) experienced a monumental boost as consumers turned to online platforms for their shopping needs, seeking both safety and convenience during lockdowns (Gupta & Randhawa, 2020). The digitalization of healthcare services also gained momentum, with telemedicine emerging as a critical tool for providing medical consultations while minimizing physical contact (Hollander & Carr, 2020).

Businesses confronted challenges associated with disrupted supply chains, uncertain market conditions, and shifting consumer behaviors. However, those quick to embrace digital transformation found themselves better positioned to adapt to the changing landscape (Marr, 2020). The pandemic underscored the importance of agility, prompting organizations to prioritize digital initiatives to navigate the uncertainties that unfolded (Bughin et al., 2021). The acceleration of digital trends during the pandemic was not solely a response to immediate challenges but also a strategic shift towards a more digitally-centric future. Companies that invested in advanced technologies, such as artificial intelligence and automation, not only mitigated short-term disruptions but positioned themselves for long-term competitiveness (World Economic Forum, 2021).

As businesses navigated the complexities of the pandemic, digital transformation became synonymous with resilience and adaptability. The embrace of digital technologies not only allowed organizations to weather the storm but also positioned them to thrive in the evolving post-pandemic landscape (Morgan, 2021). The rapid integration of digital tools and strategies served as a testament to the transformative power of technology in the face of unprecedented challenges. The pandemic acted as a catalyst for the acceleration of digital trends, reshaping the way businesses operate and interact with consumers. The swift adoption of digital technologies not only enabled immediate continuity but also laid the foundation for a future where digital transformation is integral to organizational resilience and success.

2.1.3 Resilience and Adaptability

Adaptability and Resilience Navigating the Ever-changing

Figure 3. Improvement in adaptation of digital technology at work place.

Source: *(Adapted from* Taylor, J., et al. 2023*)*

In the aftermath of the global pandemic, businesses faced unprecedented challenges that tested their resilience and adaptability. The ability to withstand disruptions and swiftly adjust to the evolving landscape became paramount for survival in the post-pandemic world.

Digital transformation played a pivotal role in building organizational resilience. As observed by McKinsey & Company, companies that had embraced digital technologies prior to the pandemic were better equipped to handle the sudden shifts in market dynamics and navigate the uncertainties that emerged (McKinsey & Company, 2020). The adoption of cloud technologies, for instance, enabled remote work capabilities, ensuring continuity in operations even amidst lockdowns and travel restrictions. Moreover, the adaptability of businesses during and after the pandemic was closely tied to their digital preparedness. Organizations that had invested in agile processes and technologies were able to pivot quickly to meet changing customer demands and market conditions (World Economic Forum, 2021). The ability to swiftly adjust business models, supply chains, and customer engagement strategies became a defining factor in maintaining competitiveness.

Real-world examples illustrate how digital transformation contributed to resilience and adaptability. Amazon, a prime exemplar, demonstrated the power of robust digital infrastructure. The company's advanced logistics systems and automated warehouses allowed it to handle surges in online orders during lockdowns, showcasing the resilience that digital technologies can offer (The Wall Street Journal, 2020). Despite the evident benefits, challenges in achieving resilience through digital transformation exist. Cybersecurity concerns, for instance, have become more pronounced as businesses rely increasingly on digital channels. Addressing these challenges necessitates a holistic approach, encompassing not only technological solutions but also a commitment to ongoing training and awareness programs for employees (Deloitte, 2021).

The post-pandemic world has underscored the critical importance of resilience and adaptability for businesses. Digital transformation emerges as a key enabler, providing the tools and strategies necessary to weather disruptions and embrace change. As organizations continue to navigate uncertainties, the integration of digital technologies will remain central to fostering resilience and ensuring sustained success in the evolving business landscape.

2.1.4 Enhanced Customer Experience

Digital transformation plays a pivotal role in elevating customer experiences in the post-pandemic world. The adoption of digital technologies enables businesses to offer more personalized and seamless interactions with their customers (Smith, 2023). Through the implementation of advanced analytics and artificial intelligence, companies can gain valuable insights into customer preferences and behavior, leading to more tailored products and services.

One notable example of enhanced customer experience through digital transformation is the integration of omnichannel strategies. By breaking down silos between online and offline channels, businesses can provide a cohesive and consistent experience across various touchpoints (Jones et al., 2022). This not only improves customer satisfaction but also fosters customer loyalty as individuals can seamlessly transition between different channels during their purchasing journey. Moreover, the use of digital communication channels, such as chatbots and virtual assistants, has become instrumental in delivering real-time support and assistance to customers. These technologies not only streamline the customer service process but also contribute to immediate problem resolution, enhancing overall customer satisfaction (Gupta & Patel, 2021).

In the financial sector, digital transformation has allowed for the development of user-friendly mobile banking apps and online platforms, providing customers with convenient and efficient ways to manage their finances (Wang & Zhang, 2023). Such innovations contribute to a positive customer experience by simplifying complex processes and offering a more accessible interface for users. Digital transformation is a driving force behind the enhancement of customer experiences in the post-pandemic era. Businesses that leverage technology to understand, anticipate, and fulfill customer needs are better positioned to thrive in the increasingly competitive market landscape (Brown & Miller, 2024). As consumer expectations continue to evolve, embracing digital transformation becomes not just a strategic advantage but a necessity for sustained success in the modern business environment.

2.1.5 Data-Driven Decision Making

In the post-pandemic world, the importance of data-driven decision-making has become increasingly evident. Organizations are leveraging data analytics to gain valuable insights that inform strategic choices and drive operational efficiencies. As Mayer-Schönberger and Cukier (2013) note, "Big data is about seeing and understanding the relation within and among pieces of information that, until very recently, we struggled to fully grasp." Digital transformation empowers businesses to collect and analyze vast amounts of data, providing a foundation for informed decision-making. This process involves the systematic use of data to identify trends,

patterns, and correlations that may not be apparent through traditional methods (Davenport & Harris, 2007). By harnessing the power of data, organizations can make more accurate predictions, mitigate risks, and identify opportunities for growth.

One significant aspect of data-driven decision-making is its role in enhancing operational efficiency. Through the analysis of operational data, organizations can identify bottlenecks, streamline processes, and optimize resource allocation (LaValle et al., 2011). For instance, manufacturing companies can use real-time production data to improve supply chain management and minimize disruptions, fostering agility and responsiveness to market changes. Moreover, the customer-centric approach facilitated by digital transformation relies heavily on data-driven insights. Organizations can use customer data to understand preferences, behavior, and feedback, tailoring products and services to meet evolving expectations (Davenport, 2014). This not only improves customer satisfaction but also strengthens brand loyalty in a highly competitive market. Data-driven decision-making also plays a crucial role in innovation. By analyzing market trends and consumer behavior, businesses can identify gaps in the market and develop innovative solutions (Bughin et al., 2018). This iterative process of data analysis and innovation creates a feedback loop that positions organizations to stay ahead of industry disruptions. However, it's essential to acknowledge the challenges associated with data-driven decision-making. Privacy concerns, data security, and the ethical use of data are critical considerations (Manyika et al., 2011). Organizations must establish robust data governance frameworks to ensure the responsible and compliant use of data in decision-making processes. The integration of data-driven decision-making into the fabric of organizational culture is a hallmark of successful digital transformation. The ability to harness data for strategic insights not only improves operational efficiency but also enhances customer experiences and fosters innovation. As businesses navigate the post-pandemic landscape, the role of data in decision-making will continue to be a driving force behind sustainable success.

2.1.6 Challenges and Considerations

Digital transformation, while promising numerous benefits, is not without its challenges and considerations. One of the primary concerns lies in the realm of cybersecurity. As businesses embrace digital technologies, they become susceptible to a heightened risk of cyber threats and attacks (Smith, 2021). The increasing volume of sensitive data being transmitted and stored digitally demands robust cybersecurity measures to safeguard against potential breaches. A significant hurdle in the digital transformation journey is the existing skill gaps within organizations. The rapid evolution of technology often outpaces the development of necessary

skills among the workforce (Jones et al., 2020). This mismatch can impede the effective implementation of digital initiatives and hinder the overall progress toward transformational goals.

Resistance to change is another formidable challenge. Employees and organizational cultures may resist adopting new technologies and processes, leading to friction in the implementation phase (Brown & Miller, 2019). Overcoming this resistance requires effective change management strategies and clear communication to ensure everyone understands the benefits of digital transformation. Moreover, the financial investment required for comprehensive digital transformation can be daunting for some businesses, particularly smaller enterprises (Johnson, 2022). Allocating resources for technology adoption, training, and infrastructure upgrades may strain budgets, necessitating careful planning and strategic allocation of funds. Addressing these challenges requires a multifaceted approach. Proactive cybersecurity measures, ongoing training programs to bridge skill gaps, and change management strategies are essential components. Additionally, businesses need to conduct thorough cost-benefit analyses to justify and optimize their digital investments (Brown & Miller, 2019; Johnson, 2022; Smith, 2021). In navigating these challenges, organizations can mitigate risks and enhance the likelihood of successful digital transformation. By acknowledging and addressing these considerations, businesses can pave the way for a smoother and more effective transition into the digitally transformed landscape.

2.1.7 Future Outlook

The future of digital transformation promises to be marked by the continued evolution of cutting-edge technologies, presenting new opportunities and challenges for businesses. As industries strive to stay ahead in the post-pandemic world, emerging technologies such as artificial intelligence (AI), machine learning, and the Internet of Things (IoT) are poised to play pivotal roles in reshaping business operations. In particular, AI and machine learning are expected to further enhance data analytics capabilities, enabling businesses to derive deeper insights from the vast amounts of information at their disposal[1]. These technologies have the potential to revolutionize decision-making processes by automating routine tasks, predicting trends, and optimizing resource allocation[2]. The integration of AI into customer relationship management systems, for instance, could lead to more personalized and responsive interactions, thereby elevating the overall customer experience.

Furthermore, the expansion of the Internet of Things (IoT) is anticipated to create a more interconnected and efficient business ecosystem. With an increasing number of devices being connected, businesses can streamline operations, monitor assets in real-time, and enhance overall productivity[4]. As a result, the digital transformation journey is expected to extend beyond

traditional business boundaries, encompassing entire ecosystems of suppliers, partners, and customers.

Figure 4. The future outlook of digital transformation
Source: *(Adapted from* Taylor, J., et al. 2023*)*

However, along with the promises of these advancements come inherent challenges. Cybersecurity concerns are likely to intensify as businesses become more dependent on interconnected technologies[5]. Securing sensitive data and ensuring the integrity of digital systems will remain critical considerations for organizations aiming to capitalize on the benefits of digital transformation. Moreover, the skill gap in the workforce is anticipated to widen as the demand for professionals with expertise in emerging technologies outpaces the current rate of skill development[6]. Addressing this challenge will require a concerted effort from educational institutions, businesses, and policymakers to provide training and education programs that align with the evolving digital landscape.

As businesses navigate this dynamic landscape, having a well-defined digital strategy will be paramount to success. The ability to adapt to evolving technologies and market trends will separate industry leaders from followers, making strategic planning an ongoing and integral aspect of digital transformation efforts[7]. In conclusion, the future outlook for digital transformation is marked by both unprecedented opportunities and complex challenges. Businesses that proactively embrace emerging technologies, address cybersecurity concerns, and invest in workforce development will be better positioned to thrive in the continually evolving post-pandemic world.

2.2 Empirical Review

Empirical research in the field of digital transformation post-pandemic has generated consistent themes aligning with findings from previous works. The literature consistently emphasizes the critical role of digital preparedness in organizational resilience, echoing the sentiments expressed by scholars such as Smith (2021). Investments in digital infrastructure, cloud technologies, and remote collaboration tools have proven instrumental in maintaining operational continuity during and after the pandemic.

Similar to Brown and Miller's (2022) observations, recent empirical studies underscore the paradigm shift in customer engagement strategies. The effectiveness of e-commerce platforms and personalized marketing in enhancing customer satisfaction and retention resonates with previous research. The contemporary consensus is that a robust online presence is integral to meeting evolving consumer expectations, aligning with the trajectory established in prior works.

Empirical investigations consistently support the correlation between digital transformation and organizational agility, mirroring the sentiments articulated by the World Economic Forum (2023). The cultivation of a culture of innovation, continuous learning, and experimentation as a response to changing market dynamics is a common thread across studies. This aligns with the perspective that digitalization not only optimizes existing processes but also facilitates the rapid development of innovative solutions..

In line with the insights from Jones et al. (2020), recent empirical findings highlight the significance of workforce adaptability and digital skills in successful digital transformation initiatives. Organizations investing in employee training and upskilling programs are echoing the sentiments expressed in prior research. Nevertheless, challenges such as resistance to change, legacy systems, and cybersecurity concerns, highlighted in Liu et al. (2022), persist as common obstacles to digital transformation.

The transformative impact of digitalization on business models and strategic decision-making, as emphasized in Cao et al. (2021), is consistently echoed in contemporary literature. Organizations aligning their strategies with digital transformation goals continue to be recognized for achieving sustained competitive advantages. Leadership commitment and strategic vision remain critical factors, reinforcing the findings established by earlier researchers.

In the broader context of economic and societal implications, recent empirical research builds upon the foundation laid by Brynjolfsson and McAfee (2019). The positive associations between digitization, increased productivity, economic growth, and job creation align with the trajectories identified in previous works. Simultaneously, concerns about digital divides and the socio-

economic impact of automation persist, emphasizing the ongoing need for inclusive digital transformation strategies.

The recent empirical literature not only substantiates but also builds upon the foundational works in the field of digital transformation post-pandemic. The alignment of findings across various dimensions, from organizational resilience to societal impacts, reflects a cumulative understanding of the strategic imperatives involved in navigating the digital landscape in the aftermath of the pandemic.

3. MATERIAL AND METHOD

This study employs a qualitative research design to explore and analyze the importance of digital transformation in the post-pandemic world. Qualitative research is chosen for its suitability in capturing nuanced insights, experiences, and perceptions surrounding the topic. Accordingly, a comprehensive review of related academic literatures, industry reports, and relevant publications forms the foundation of this research. This involves analyzing scholarly articles, books, and reports from reputable sources to understand the theoretical framework and existing knowledge on digital transformation in the post-pandemic era. The literature reviewed includes scholarly articles, reports, and publications from reputable databases such as PubMed, IEEE Xplore, and academic journals in business and technology fields. A systematic approach is employed to select relevant literature that contributes significantly to the understanding of digital transformation.

The qualitative data gathered from related literatures reviewed and case studies underwent thematic analysis. This involves identifying key themes, patterns, and trends within the data to extract meaningful insights. The analysis is guided by the research objectives, allowing for the exploration of various facets of digital transformation importance in the post COVID-19 pandemic context.

4. OBSERVATIONS AND DISCUSSIONS

Digital transformation has emerged as a critical imperative in the post-pandemic world, playing a pivotal role in reshaping business strategies and operations. The global disruption caused by the COVID-19 pandemic highlighted the need for organizations to embrace digital technologies to ensure resilience and agility in the face of unforeseen challenges (Smith, 2021). One key observation made is that companies that had already undergone substantial digital transformations prior to the pandemic were better equipped to adapt to the new normal and navigate the uncertainties brought about by the crisis.

The accelerated adoption of digital tools and technologies during the pandemic underscored their significance in maintaining business continuity. Remote work, digital collaboration platforms, and cloud computing became essential components of the modern workplace, enabling organizations to sustain operations amidst lockdowns and restrictions (Jones et al., 2020). This shift emphasized the importance of digital transformation not only as a long-term strategic initiative but also as a crucial aspect of immediate business survival.

Furthermore, the COVID-19 pandemic-induced changes in consumer behavior and preferences highlighted the need for businesses to enhance their online presence and customer engagement strategies. Companies that invested in e-commerce, digital marketing, and personalized customer experiences witnessed greater success in retaining and attracting customers in the digital landscape (Brown & Miller, 2022). This finding underscores the direct link between digital transformation efforts and a company's ability to stay competitive and relevant in the post-pandemic marketplace. In the post COVID-19 pandemic era, digital transformation is not merely about technology adoption but also about fostering a culture of innovation and adaptability within organizations. The ability to quickly respond to evolving market dynamics and customer needs has become a key differentiator, and digital transformation serves as the catalyst for building this organizational agility (World Economic Forum, 2023). Companies that prioritize a culture of continuous learning and experimentation as part of their digital transformation journey are better positioned to thrive in the rapidly changing business landscape.

In summary, the post COVID-19 pandemic world has underscored the critical importance of digital transformation for organizations seeking to thrive in the face of uncertainty. From enhancing operational resilience to meeting evolving customer expectations, the findings reveal that digital transformation is not just a technological upgrade but a fundamental shift in how businesses operate and innovate in the modern era. Embracing digital transformation is not only a strategic imperative but a survival strategy for organizations aiming to remain competitive and resilient in the ever-evolving global landscape.

CONCLUSION AND RECOMMENDATIONS

The post COVID-19 pandemic era demands a profound embrace of digital transformation as an imperative for organizational resilience and sustained success. As we have explored, the accelerated digital trends during the pandemic underscore the vital role technology plays in adapting to unprecedented challenges (Smith, 2021). Businesses that had invested in digital transformation were not only better equipped to weather the storm but also showcased remarkable adaptability in the face of uncertainties (Jones et al., 2022).

The enhanced customer experience facilitated by digital transformation cannot be overstated. As organizations increasingly pivot toward omnichannel approaches and personalized services, they not only meet customer expectations but also foster loyalty in an ever-evolving market (Brown & Patel, 2020). Furthermore, data-driven decision-making emerges as a cornerstone for businesses navigating the complexities of the post-pandemic landscape. Companies adept at harnessing and interpreting data gain a competitive advantage in making informed, strategic choices (Johnson, 2023).

Despite its undeniable benefits, the journey of digital transformation is not without its challenges. Cybersecurity concerns, skill gaps, and resistance to change pose formidable obstacles that necessitate thoughtful strategies and implementation (Chen & Wang, 2021). It is crucial for organizations to recognize these challenges and proactively address them, forming a robust foundation for successful digital initiatives. Looking ahead, the future of digital transformation promises even more exciting developments. Emerging technologies such as artificial intelligence, blockchain, and the Internet of Things are poised to reshape industries and redefine business processes (Miller, 2023). Staying attuned to these advancements and adopting a continuous approach to digital transformation will be imperative for organizations aspiring to thrive in the dynamic business landscape of the future.

In the grand tapestry of post COVID-19 pandemic recovery, digital transformation emerges not merely as a buzzword but as a strategic imperative. As organizations navigate the path forward, the importance of a well-defined digital strategy cannot be overstated (Gupta et al., 2022). By embracing digital transformation, businesses not only position themselves as agile and adaptive but also foster an environment conducive to innovation and sustainable growth in the years to come.

Based on the observations made as discussed above, the following recommendations were made. These recommendations are tailored to guide organizations in their digital transformation journey, emphasizing the need for a comprehensive and strategic approach to remain competitive and resilient in the post-pandemic landscape.

1. *Prioritize Digital Infrastructure Investment:* Organizations should prioritize investments in robust digital infrastructure to support remote work, digital collaboration, and efficient data management. This includes ensuring reliable connectivity, cloud computing capabilities, and cybersecurity measures to safeguard sensitive information (Smith, 2021).

2. *Accelerate Digital Adoption Initiatives:* Recognizing the role of digital tools in business continuity, companies should accelerate their digital adoption initiatives. This involves

embracing technologies such as artificial intelligence, automation, and analytics to enhance operational efficiency and responsiveness to market changes (Jones et al., 2020).

3. *Enhance E-commerce Capabilities:* Given the shift in consumer behavior towards online channels, businesses should focus on enhancing their e-commerce capabilities. This includes optimizing online platforms, implementing secure payment systems, and leveraging digital marketing strategies to reach and engage customers effectively (Brown & Miller, 2022).

4. *Cultivate a Culture of Innovation and Agility:* Digital transformation is not just about technology; it requires fostering a culture of innovation and adaptability within the organization. Companies should encourage a mindset of continuous learning, experimentation, and openness to change to stay agile in the face of evolving challenges (World Economic Forum, 2023).

5. *Invest in Employee Training and Upskilling:* As digital technologies continue to evolve, it is crucial to invest in employee training and upskilling programs. This ensures that the workforce remains equipped with the necessary skills to leverage new technologies effectively, contributing to the overall success of digital transformation initiatives.

6. *Establish Strong Data Governance Practices:* With the increasing reliance on digital data, organizations must establish strong data governance practices. This involves defining clear data management policies, ensuring data privacy compliance, and implementing measures to maintain the integrity and security of organizational data.

7. *Collaborate with Technology Partners:* Collaboration with technology partners and vendors can provide valuable expertise and resources in navigating the complexities of digital transformation. Strategic partnerships can expedite the adoption of innovative solutions and help organizations stay at the forefront of technological advancements.

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