

## **CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE OF LISTED INSURANCE FIRMS IN NIGERIA: MODERATING ROLE OF SUSTAINABILITY REPORTING**

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### **Abstract**

The main aim of this research is to examine the impact of capital structure on financial performance of listed insurance firms in Nigeria with the moderating role of sustainability reporting. A correlational and ex-post factor research designs were adopted for the study. The population of this study is 26 listed insurance firms and the sample size of the study consists of 25 listed insurance firms on the floor of Nigeria Exchange Group for the period 2013 to 2022. Panel corrected standard errors (PCSE) regression model was employed to analyze the data of the study with the aid of diagnostic tests. The findings of this study revealed that equity financing ratio and debt financing ratio are positive and significant to the financial performance of insurance firms in Nigeria. On the other hand, the moderated model documented an insignificant correlation between capital structure and financial performance of listed insurance firms in Nigeria. This study recommends that insurance firms in Nigeria should come up with effective policy towards encouraging equity and debt financing in their entities by effective supervision so as to enhance the overall financial performance as well as safeguarding shareholder's interest.

**Keywords:** sustainability reporting, debt, equity, finance, insurance, financial, Nigeria

### **1. Introduction**

Financial performance is a major area of interest to investor, stakeholders because it indicates the wellbeing and survival of a firm. Firm's financial performance has become an issue of interest to shareholders because this is due to the fact that the financial performance of a firm shows how well the business organization makes best use of wealth of investors and generates income from investments (Tanko et al. 2021). Financial managers employ policies that are related to finance in other to attend an optimum capital structure in their different corporations so as to enhance their performance (Mohammed et al. 2022). Financial performance remains very vital to all concern groups with direct or indirect interest in a company this is because it shows the outcome of the firm's strategic policies and business operation monetarily.

Financial performance serves as a means through which managers' performance and their self-serving interest can be judged (Uadiale & Fagbemi, 2015). A firm with a well-structured ownership spread plays an important role in improving financial performance (Singh &

Bagga, 2019). According to Andow and David (2016), one of the reasons for poor financial performance of a company is as a result of poor management. Ali et al. (2023) have pointed out that business organizations need to make good returns in order to continue to exist and attract investors and other stakeholders. This is because no rational investors would like to invest their money in any business that has no good record of financial performance. Al-Matari et al. (2012) have maintained that financial performance is fundamental to the perpetual existence of a firm.

Financial performance as a fraction of income to total assets shows how effective and efficient the management of a firm is generating income utilizing its profit generating assets (Oekrezi, 2015). The measurement of financial performance can be done through careful assessment of factors important to profit generation (sale price, production cost and output levels) in order to establish the exert impact of capital structure on the financial performance of listed insurance companies in Nigeria. Therefore, this is likely credited to lack of careful assessment of the factors that are important to profit generation of the firms in this sector.

Capital structure refers to a combination of debt and equity in financing an operation and acquiring assets (Salim & Yadav, 2012). Corporate firms are faced with a decision dilemma on the amount of debt and equity, to source in financing their operations. In sourcing for corporate funds, corporate firms prefer to source for equity funds rather than debt due to the associated risks (Abdulwahab et al., 2023). The study by Anh et al. (2018) maintains that the inadequacy of the internally generated funds to finance business expansion necessitates that they borrow especially on a short-term basis due to accessibility impediments as well as the high cost associated with long-term debt. Accordingly, the firm has to determine an optimal capital structure that will maximize its value (Das & Swain, 2018).

Considering the significance of the insurance sector (as a vital shield against unforeseen circumstances) to an economy's growth and development, this study employs variables (equity and debt ratios, and financial performance) from financial statements of listed insurance firms to examine the moderating role of sustainability reporting as one of the attributes of corporate governance. It will also examine the relationship between capital structure and performance of listed insurance firms in Nigeria. This will, in the long run, contribute to existing literature particularly about the indirect relationships that exists among these three variables to examine the strength and direction of the dependent and independent variable as argued by Baron and Kenny (1986). Therefore, this study seeks to investigate the moderating role of sustainability reporting on the relationship between the capital structure and financial performance of the listed insurance firms in Nigeria.

The insurance firms in Nigeria are not financially strong in term of return on assets and as a result of that they hardly underwrite a large percentage of their risks (Fodio et al. 2013). The management of these insurance companies delays the payment of claims to their insured and this is discouraging to buying insurance policies in Nigeria and consequently affecting their performance negatively (Titilayo, 2022).

The main objective of this study is to examine the effect of capital structure on financial performance of listed insurance firms in Nigeria with the moderating role of sustainability reporting. Other specific objectives of this study are:

- i. To examine the effect of equity on financial performance of listed insurance firms in Nigeria.

- ii. To investigate the effect of debt on financial performance of insurance firms in Nigeria.
- iii. To examine the influence of sustainability reporting on financial performance of listed insurance firms in Nigeria.
- iv. To investigate the relationship of sustainability reporting between equity and financial performance of listed insurance firms in Nigeria.
- v. To investigate the nexus of sustainability reporting between debt and financial performance of listed insurance firms in Nigeria.

In order to achieve the objectives of the study, the following formulated null hypotheses shall be tested:

H<sub>01</sub> Equity has no significant impact on financial performance of listed insurance firms in Nigeria. H<sub>02</sub> Debt has no significant influence on financial performance of listed insurance firms in Nigeria. H<sub>03</sub> Sustainability reporting has no significant influence on financial performance of listed insurance firms in Nigeria.

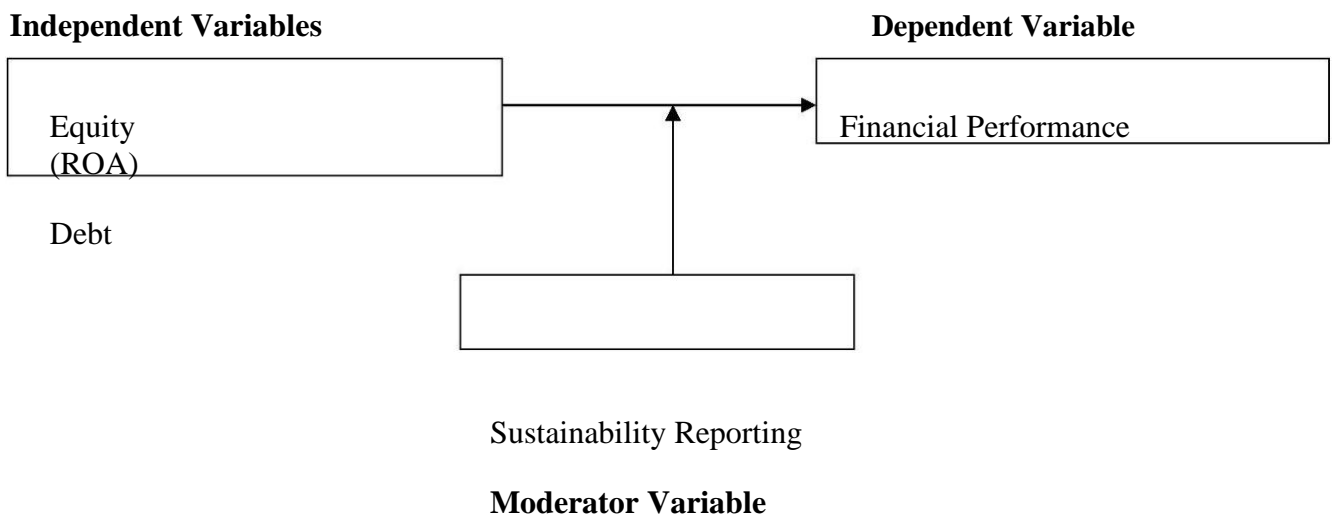
H<sub>04</sub> Sustainability reporting has no significant moderating influence on the relationship between equity and financial performance of listed insurance firms in Nigeria.

H<sub>05</sub> Sustainability reporting has no significant moderating effect on the relationship between debt and financial performance of listed insurance firms in Nigeria.

## 2. Literature Review

### Conceptual Framework

The conceptual framework developed for the study is in figure 1 as follows:



**Source:** Generated by the Researcher, 2024.

Figure 1: Conceptual Framework.

Figure 1 shows the relationship between the independent variables; equity, debt and the moderating variable of sustainability reporting with the dependent variable financial performance.

## **Empirical Review**

Abdulwahab et al. (2023) investigated the effect of capital structure and firm financial performance of listed deposit money banks in Nigeria with the moderating role of board financial literacy. Their study revealed a negative and insignificant association between equity and financial performance for the period of 2012 to 2021. Mohammed et al. (2022) examined the impact of capital structure and firm financial performance of listed deposit money banks in Nigeria with the moderating role of board size. Their study documented a positive and significant association between equity, debt and financial performance.

Wangombe and Kibati (2019) study was to determine the effect of debt capital, equity capital and retained earnings on financial performance of licensed micro finance banks in Kenya. This study utilized descriptive research design. Empirical research method was used. It used panel data of five years due to the advantage that it had. It helped to study the behavior of each licensed micro finance bank over time and across space. In this study, the population consisted of all the licensed micro finance banks registered by the Central Bank of Kenya. According to the central bank of Kenya, there were thirteen licensed micro finance banks in Kenya. The results revealed that the firm utilized trade credits to finance micro finance banks. Furthermore, the findings indicated that the licensed micro finance banks considered the use of asset-based lenders to ensure consistency in capital flow. Similarly, the findings also indicated that the firm considered the financing through commercial finance companies as a means of raising their capital. The study was however conducted on micro finance banks in Kenya. Hence, a study on other sectors may produce different results.

Alamgir, Abdullah and Khalid (2019) empirically studied the relationship between capital structure and firm's financial performance in a developing country like Bangladesh. The investigation has been conducted through using panel data procedure for a sample of Dhaka stock market enlisted all IT firms during the year of 2013-2017. This research works has been performed through the three performance measures including return on equity, return on asset, and earnings per share as dependent variables, where capital structure is considered as debt ratio (DR), equity ratio (ER), long-term debt ratio (LTDR), short-term debt ratio (STDTR) and used as independent variables. However, descriptive statistics, correlation, pooled ordinary least square analysis, fixed effect and Random effect model has been analyzed to find the relationship between capital structure and financial performance. The outcome of the study may not be applicable in Nigeria considering the environment and again it may not be applicable to other industries of the same country not to talk of other countries.

Ajibola and Wisdom (2018) examined capital structure and financial performance of listed manufacturing firms in Nigeria and the findings revealed a negative insignificant correlation with

equity financing and financial performance. Also, Uremadu and Onyekachi (2018) investigated the impact of capital structure on corporate performance of consumer goods firm in Nigeria. The result documented an insignificant connection linking equity financing and financial performance. In addition, Basit and Irwan (2017) in their study revealed that equity ratio has an insignificant correlation with the firms' financial performance.

On the other hand, Abdulla (2017) conducted a study on capital structure and financial performance in UAE non-financial companies. The findings of the study shown a positive

significant association between equity financing and financial performance. Similarly, Dahiru (2016) investigated capital structure and financial performance of listed manufacturing firms in Nigeria and the result of the study found a significant positive association involving equity financing with financial performance of the firms.

## **Theoretical Framework**

### **Traditional Theory of Financial Structure**

This theory holds the position that the cost of capital and an organization's total valuation are not independent of their capital structure. It maintains that there is an optimal capital structure and that the firm can increase its total value and reduce its cost of capital through judicious use of funds. There is an efficient combination of equity and debt financing which could bring about better financial performance by firms (Pandey, 2010). In the traditional view, the cost of capital decreases within some reasonable limits of debt and then increases if more debt is employed.

The main point of the traditional theory is that, if the cost of equity is higher than the cost of debt, then the more highly leveraged a company becomes, the lower will be its cost of capital. However, at some point, the proportion of debt will become sufficiently large for the firm to become very risky to lend more to its business (Van Horne, 2006). This therefore raises the risk level for equity holders.

## **3. Method**

Correlational and ex post facto research design with a positivism paradigm in line with Huang et al. (2012); Shehu (2013); Waweru and Riro (2013) and Olowokure et al. (2016) will be employed. The population of this study consists of all the twenty-five (26) listed insurance firms in the Nigerian Exchange Group Plc as at December 2022. and whose data are available for the period of study, from 2013 to 2022. In light of the above, out of these 26 listed insurance firms in Nigeria, Africa Prudential Plc was filtered out as data for 2013 was not available. The remaining 25 banks were therefore used for this study. The justification for using the entire 25 listed insurance

firms with complete data and not just a sample is because the entire population is not more than thirteen and using a census rather than a sample will improve the robustness of the data. The study adopted secondary sources of data collection. Data was obtained from the annual reports of the sampled insurance firms listed on the floor of the Nigerian Exchange Group Plc for the period of 2013-2022.

The variables of the study consist of dependent variable which is financial performance measured by return on assets by Yahaya et al. (2015). The independent variables, capital structure were proxies by equity financing, and debt to equity financing. This is shown in Table 2, which contains each variable with their respective definitions.

**Table 1: Variables Measurement and Source**

<b>Variables</b>	<b>Measurements</b>	<b>Source</b>
Return on Assets (ROA)	Measured by Profit before Tax/ Total Assets.	Ajibola and Wisdom (2018) & Yahaya et al.

Equity (EQTY)	Total Equity / Total Assets.	(2015). Mohammed et al. (2022).
Debt (DEBT)	Debts to equity.	Abdulwahab et al. (2023).
Sustainability Reporting (SR)	1 is tagged to firm that disclosed impact sustainability information (local community disclosure; donation and gifts employee disclosure; health and safety disclosure; customer and complaints disclosure and environmental disclosure) in financial statement, otherwise 0.	Adamu & Tyasari (2022).
Audit Quality (AQ)	1 is tagged to insurance firms audited by Big 4 Auditor, 0 for otherwise.	(Bala et al. 2022).

**Source:** Generated by the Researcher, 2024.

### Model Specification

The specific model is as stated below:

$$ROA_{it} = \beta_0 + \beta_1 EQTY_{it} + \beta_2 DEBT_{it} + \beta_3 SUST_{it} + \beta_4 AQ_{it} + \beta_5 SUST * EQTY_{it} + \beta_6 SUST * DEBT_{it} + \epsilon_{it}$$

(i)

Where: ROA = Return on Assets, EQTY = Equity, DEBT = Debt, SUST = Sustainability Reporting, AQ = Audit Quality,  $\beta_0$  = Constant,  $\beta_1 - \beta_4$  = Co-efficient of EQTY, DEBT, and SR respectively,  $\epsilon$  = other factors that were not included by this model, i = participating firms (i = 25 firms) and t = time variable (t = 10 years).

## 4. Results and Discussion

### Descriptive Statistics

The descriptive statistics is presented in table 4.1 where the mean, standard deviation, minimum, maximum, kurtosis and skewness of the variables employed are described.

**Table 2: Descriptive Statistics**

Variables	Obs.	Min	Max.	Mean	Std. Dev.
ROA	250	0.105	0.899	0.621	0.324
EQTY	250	0.027	0.375	0.220	0.071
DEBT	250	0.051	4.328	2.623	0.978
SUST	250	0.000	1.000	0.916	0.280
AQ	250	0.000	1.000	0.900	0.301

**Source:** Extracted from STATA 17 Output, 2024.

Table 2 reveals that return on assets had a mean value of 0.621 which indicates that the listed insurance firms in Nigeria on the average had a return (profit) of 62.1% during the study period. The minimum and maximum return on assets of the listed insurance firms in Nigeria are 0.105 and 0.899. This implies that the least profitable insurance firms in Nigeria incurred profit of 10.5% on every naira invested in the assets of the firm. While the most profitable of

the listed insurance firm in Nigeria earned 89.9% on every naira invested. The standard deviation for return on assets is 0.324, which indicates that the deviation from profitability of the listed insurance firms in Nigeria averaged 32.4%. That is, return on assets deviated by 32.4% on either side from return on assets. Also, the standard deviation value shows that there the dispersion of the data from the mean is not too wide.

Also, EQTY revealed a mean value of 0.220 and spread at 0.071. Also, 0.027 and 0.375 represents the minimum and maximum value respectively. This signifies that the listed insurance firms in Nigeria on the average had equity of 22% during the study period. The standard deviation equity was 0.071, which indicates that the deviation from equity of the listed insurance firms in Nigeria averaged 7.1%. The standard deviation value indicates that the equity financing ratio deviated from the mean value at a moderate level. The least equity of insurance firms in Nigeria stood at 2.7% on every naira attached to the equity of the firm. While, highest equity of the listed insurance firm in Nigeria earned 37.5% on every naira invested attached to the equity of the firm.

Lastly, debt revealed a mean value of 2.623 and spread at 0.978. Also, 0.051 and 4.328 represents the minimum and maximum value respectively. This signifies that the listed insurance firms in Nigeria on the average had 2.623 on debt during the study period. The standard deviation of debt was 0.978, which indicates that the deviation from debt of the listed insurance firms in Nigeria. The least debt of insurance firms in Nigeria stood at 5.1% on every naira attached to the debt of the firm. While, highest debt of the listed insurance firm in Nigeria stood at 4.328 on every naira invested attached to the equity of the firm.

### **Correlation Matrix**

Table 3 presents correlation matrix of the study where the degree of association between the dependent variable and independent variables is determined as well as the association among the repressors themselves.

**Table 3: Correlation Matrix**

<b>Variables</b>	<b>ROA</b>	<b>EQTY</b>	<b>DEBT</b>	<b>SUST</b>	<b>AQ</b>
ROA	1.000				
EQTY	-0.023	1.000			
DEBT	0.493	-0.246	1.000		
SUST	-0.167	0.346	-0.088	1.000	
AQ	-0.013	0.140	-0.132	-0.053	1.000

**Source:** Extracted from STATA 17 Output by the Researcher, 2024.

Table 3 showed a positive significant association between debt financing ratio with return on assets of the sampled Insurance firms in Nigeria. In addition, there is a negative correlation involving equity, and sustainability reporting on return on assets of the listed insurance firms in Nigeria. For audit quality (control variable) documented a positive correlation with return on assets of the sampled Insurance firms in Nigeria. Moreover, the correlations linking the independent variables are insignificant, which indicate that this study’s model is free from multicollinearity.

### **Diagnostic Test**

This section discussed the diagnostic test conducted so as to determine the reliability and validity of the inferential statistics from the regression model. The test consists of Multicollinearity test (that is tolerance value and variance inflation factor VIF) and Breusch-Pagan / Cook-Weisberg test for heteroskedasticity.

**Table 5: Diagnostic Test**

<b>Variables</b>	<b>VIF</b>	<b>Tolerance Value</b>
EQTY	1.22	0.817
DEBT	1.08	0.930
SUST	1.15	0.870
AQ	1.04	0.959
Mean VIF		1.12
Hetttest Sig.		0.002
Hetttest Sig.		0.007

**Source:** Extracted from STATA 17 Output by the Researcher, 2024.

Table 5 found that the data of the study are heteroscedastic not homoscedastic evidenced from the hetttest probability of 0.007 in both models (direct and indirect). This suggests that the original OLS regression is not suitable for the study which leads this work to run for fixed effects, random effects, hausman test and panel corrected standard errors (PCSE) regression. However, panel corrected standard errors (PCSE) regression was meant as it correct the heteroskedasticity in the models. Also, the variable are free from multicollinearity, this is because none of the VIF of the variables is up to 6 (Gujarati, 1995).

Table 5 shows that equity financing ratio has a positive and significant relationship with return on assets of the listed insurance firms in Nigeria evidenced from p-value of 0.010 and coefficient of .740, which is significant at 5% level. This implies that in every N1 increase in equity financing ratio it will translate to an increase by 74% in the return on assets of the listed insurance firms in Nigeria. Also, this outcome reveals that equity financing ratio is likely to significantly influence the return on assets of listed insurance firms in Nigeria for the period of 2013 to 2022. This aligns with the researcher's apriori expectation, it also valid the traditional theory of financial structure. Hence, the result of this model rejected the formulated null hypothesis one of the study. In addition, the findings is in conflict with the work of Basit and Irwan (2017) & Dahiru (2016) but consistent to that of (Abdulwahab et al. 2023; Mohammed et al., 2022; Tanko et al., 2021 and Chechet & Olayiwola, 2014).

Again, table 5 revealed that debt financing ratio has a positive significant correlation with return on assets of the sampled insurance in Nigeria evidenced from p-value of 0.000 (significant at 1% level) and coefficient of 0.173. This signifies that in every N1 increase in DEBT it will lead to an increase by 17.3% on return on assets of the listed insurance firms in Nigeria. This signifies that debt financing ratio influences return on assets of listed insurance firms in Nigeria for the period 2013 to 2022. This aligns with the researcher's apriori expectation, it also valid the traditional theory of financial structure. Hence, the result of this model rejected the formulated null hypothesis two of the study. In addition, the findings contradicts that of Abdulwahab et al. (2023), Mohammed et al., (2022) and Tanko et al. (2021) but it's in cohort with that of (Uremadu & Onyekachi, 2018).

Also, sustainability reporting revealed a negative and statistically significant correlation with return on assets of listed insurance firms in Nigeria at 1% level of significance, evidenced from the coefficient value of -0.205 and 0.000. This means that in every percentage raise in sustainability reporting financial performance will decrease by 20.5% for the periods under review. This signifies that sustainability reporting does not enhance the financial performance of listed insurance firms in Nigeria for the period of this study. This does not align with the researcher’s apriori expectation, it also invalids the traditional theory of financial structure. Hence, the result of this model rejected the formulated null hypothesis three of the study. Lastly, this model explains the return on assets at 28% and the remaining 72% is accounted by the random error term (variables not captured in model).

**Table 6:** Summary of Regression Results  
Panel Corrected Standard Errors (PCSE) Regression - Moderated Model

<b>Variables</b>	<b>Coefficients</b>	<b>Z-value</b>	<b>P-value</b>
EQTY	-0.810	-1.27	0.203
DEBT	0.098	1.06	0.287
SUST	-0.700	-1.86	0.063
AQ	0.018	0.35	0.730
<b>SUST*EQTY</b>	<b>1.797</b>	<b>2.35</b>	<b>0.019</b>
<b>SUST*DEBT</b>	<b>0.077</b>	<b>0.79</b>	<b>0.428</b>
R <sub>2</sub>			0.300
Wald Chi <sup>2</sup>			131.08
Prob. Chi <sup>2</sup>			0.000

**Source:** Extracted from STATA 17 Output by the Researcher, 2024.

Table 6 shows that there was a change in relationship between equity financing ratio and ROA from a positive significant to a negative insignificant for the direct and indirect models respectively. The interaction of sustainability reporting between EQTY and financial performance revealed has a negative insignificant correlation evidenced from the p-value of 0.019 and coefficient of 1.797. This indicates that it is significant at 5% level of significance. This implies that in every N1 increase in EQTY it will translate to a decrease to a significant increase on the return on assets of the listed insurance firms in Nigeria. Also, this outcome reveals that sustainability reporting failed to maintain a sound financial performance with equity financing ratio of listed insurance firms in Nigeria for the period under review. Hence, the result of this model accepted the formulated null hypothesis.

Table 6 shows that there was a change in relationship between debt financing ratio and ROA from a positive significant to a positive insignificant for the direct and indirect models respectively. The interaction of sustainability reporting between debt financing ratio and financial performance revealed has a positive insignificant correlation evidenced from the p-value of 0.428 and coefficient of 0.077. This indicates that it is insignificant at all level of significance. This implies that in every N1 increase in debt financing ratio it will translate to no impact on the return on assets of the listed insurance firms in Nigeria. Also, this outcome reveals that sustainability reporting failed to sustain a sound financial performance with debt

financing ratio of listed insurance firms in Nigeria for the period under review. Hence, the result of this model fails to reject the formulated null hypothesis five of this study.

## **5. Conclusion and Recommendations**

This study examines two aspects of capital structure with and without the interaction of sustainability reporting on financial performance of listed insurance firms in Nigeria. Therefore, the following conclusions were drawn which were built from the findings of the study. This study concludes in its direct model reported that:

- i. Equity financing ratio was found to be positive and significantly related with return on assets of listed insurance firms in Nigeria for the period under review.
- ii. Debt financing ratio was found to be positive and significantly related with return on assets of listed insurance firms in Nigeria for the period under review.
- iii. Sustainability reporting (moderator variable) was found to be negatively related with return on assets of listed insurance firms in Nigeria for the period under review.
- iv. Audit quality (control variable) found to be positive but insignificantly correlated on return on assets of listed insurance firms in Nigeria for the period 2013-2022.

Conversely, the moderated model documented that:

- i. The interaction of sustainability reporting on equity financing ratio and return on assets of listed insurance firms in Nigeria documented a positive and statistically significant association.
- ii. The interaction of sustainability reporting on debt financing ratio and return on assets of listed insurance firms in Nigeria documented a positive and statistically insignificant association.

In line with the findings of this study, the following recommendations were drawn:

- i. Insurance firms in Nigeria should leverage more on equity financing in other to ensure financial returns.
- ii. Insurance firms in Nigeria should leverage more on debt financing in other to sustain optimal financial performance.
- iii. Insurance firms in Nigeria should increase spending towards sustainable developments by carry their host communities along, so as to enhance their financial growth.

## **References**

- Abdulla, Y. (2017). Capital structure in a tax-free economy: Evidence from UAE. *International Journal of Islamic and Middle Eastern Finance and Management*, 10(1), 22–37.
- Abdulwahab, A, I., Bala, H., Adamu, A., Yahaya, O, A., & Khatoon, G. (2023). Does board independence moderate the nexus involving ownership formation and financial performance? Evidence from Nigerian Exchange Group. *POLAC International Journal of Economics and Management Science (PIJEMS)*, 9(2), 1–9.

- Abdulwahab, A. I., Bala, H., Kwanbo, M. L., &. (2023). Gusau Journal of Accounting and Finance. *Gusau Journal of Accounting and Finance*, 3(3), 1–17. <https://doi.org/10.57233/gujaf.v3i3.177>
- Adamu, A. I., & Tyasari, I. (2022). Social sustainability reporting and board structures in the healthcare industry. *Indonesian Journal of Sustainability Accounting and Management*, 6(1), 24–33. <https://doi.org/10.28992/ijSAM.v6i1.485>
- Ajibola, A., & Wisdom, O. (2018). Capital structure and financial performance of listed manufacturing firms in Nigeria. *Journal of Research in International Business and Management*, 5(3), 81–89.
- Al-Matari, Y. A., Kaid Al-Swidi, A., Hanim, F., Fadzil, B., & Al-Matari, E. M. (2012). Board of Directors, Audit Committee Characteristics and Performance of Saudi Arabia Listed Companies. *International Review of Management and Marketing*.
- Alamgir, H., Abdullah, A. Y. K., & Khalid, M. (2019). An empirical analysis of capital structure and firm's financial performance in a developing country. *Global Journal of Management and Business Research*, 19(3), 25–39.
- Ali, M., Jamal, A. H., & Ashfaq, J. (2023). Impact of audit committee characteristics on financial performance: A study of listed companies of Pakistan. *Pakistan Research Journal of Social Sciences*, 2(4), 41–56.
- Andow, H. A., & David, B. H. (2016). Ownership structure and financial performance of listed conglomerate firms in Nigeria. *The Business & Management Review*, 7(3), 231–240.
- Anh, N. H., Duong, D. T., Yoon, S. W. (2018). Capital structure and firm financial performance in Vietnam. *International Journal of Accounting and Finance*, 8(2), 122. <https://doi.org/10.1504/ijaf.2018.10014466>
- Bala, H., Abdulwahab, A. I., Kwanbo, M. L., Khatoon, G., & Karaye, A. B. (2022). Audit committee attributes and whistle-blowing policy. *Koya University Journal of Humanities and Social Sciences*, 5(1), 1–6.
- Basit, A., & Irwan, F. N. (2017). The impact of capital structure on firms performance: Evidence from Malaysian industrial sector a case based approach. *International Journal of Accounting & Business Management*, 5(2), 1–17.
- Chechet, I., & Olayiwola, O. (2014). Capital structure and profitability of Nigeria quoted firms. The agency cost theory perspective. *American International Journal of Social Science*, 5(3), 1–16.
- Dahiru, I. (2016). *Capital structure and financial performance of listed manufacturing firms in Nigeria. Ahmadu Bello University Zaria.*
- Das, C. P., & Swain, R. K. (2018). Influence of capital structure on financial performance. *Journal of Management*, 14(June), 161–178. <https://doi.org/10.23862/kiit-parikalpana/2018/v14/i1/173256>
- Fodio, M. I., Ibikunle, J., & Oba, V. C. (2013). Corporate governance mechanisms and reported earnings quality in listed Nigerian insurance firms. *International Journal of Finance and Accounting*, 2(5), 279–286. <https://doi.org/10.5923/j.ijfa.20130205.01>
- Gujarati, D. N. (1995). *Basic econometrics - Gujarati 5th edition.pdf* (pp. 12–45). pp. 12–45.

- Huang, H. W., Rose-Green, E., & Lee, C. C. (2012). CEO age and financial reporting quality. *Accounting Horizons*, 26(4), 725–740. <https://doi.org/http://dx.doi.org/10.2308/acch-50268>
- Mohammed, I., Gugong, B. K., & Ayuba, A. (2022). Capital structure, board Size and financial performance of listed deposit money banks in Nigeria. *NDA Journal of Management Sciences Research*, 2(1), 12–25.
- Oekrezi, C. (2015). Effect of company's characteristics on performance of quoted insurance companies in Albanian. *Research Journal of Business Management*, 3(1), 37–49.
- Ogiriki, T., Andabai, P., & Werigbelegha, B. (2018). Effect of financial leverage on corporate performance of firms in Nigeria. *Research Journal of Finance and Accounting*, 9(4), 2–15.
- Olowokure, O. A., Tanko, M., & Nyor, T. (2016). Firm structural characteristics and financial reporting quality of listed deposit money banks in Nigeria. *International Business Research*, 9(1), 106–122. <https://doi.org/10.5539/ibr.v9n1p106>
- Pandey, I. M. (2010). *Financial Management (10th ed.)*. New Delhi: Vikas Publishing House PVT Ltd.
- Salim, M., & Yadav, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Procedia - Social and Behavioral Sciences*, 65(August), 156–166. <https://doi.org/10.1016/j.sbspro.2012.11.105>
- Shehu, U. H. (2013). Financial reporting quality, does monitoring characteristics matter? An empirical analysis of Nigerian manufacturing sector. *The Business & Management Review*, 5(3), 147–161.
- Singh, N. P., Bagga, M. (2019). The effect of capital structure on profitability: An empirical panel data study. *Jindal Journal of Business Research*, 8(1), 8–19. <https://doi.org/10.1177/2278682118823312>
- Tanko, U. M., Siyanbola, A. A., Bako, P. M., & Dotun, O. V. (2021). Capital structure and firm financial performance: Moderating effect of board financial literacy in Nigerian listed non-financial companies. *Journal of Accounting Research, Organization and Economics*, 4(1), 48–66. <https://doi.org/10.24815/jaroe.v4i1.18322>
- Titilayo, A. (2022). Board characteristics and firm performance of quoted insurance companies in Nigeria. *International Journal of Public Administration and Management Research*, 7(5), 1–22.
- Uadiale, O. M., & Fagbemi, T. O. (2015). Corporate social responsibility and financial performance in developing economies: The Nigerian experience. *Journal of Economics and Sustainable Development*, 3(4), 44–54.
- Uremadu, O. S., & Onyekachi, O. (2018). Impact of capital structure on corporate performance in Nigeria with special focus on consumer goods firm sector of the economy. *Current Investigation on Agricultural Research*, 7(3), 2–18.
- Wangombe, B. G., & Kibati, P. (2019). Influence of capital structure on financial performance of licensed micro finance banks in Kenya. *Journal of Accounting and Finance*, 6(29), 815–835.
- Waweru, N. M., & Riro, G. K. (2013). Corporate governance, firm characteristics and earnings management in an emerging economy. *Journal of Accounting Research*, 11(1), 43–64.
- Yahaya, O. A., Farouk, B. K. U., Lamidi, Y. S., Yusuf, M. J., & Dania, I. S. (2015). Impact of competition on the financial performance of listed deposit money banks in Nigeria. *Journal of Economics and Sustainable Development*, 6(13), 52–61.