



## Capital Structure and Corporate Performance with the Moderating Role of Financial Literacy

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### Abstract

**Research Objective:** This study investigates the moderating effect of financial literacy on the relationship between capital structure and corporate performance among listed non-financial firms in Nigeria.

**Methodology:** The study utilised a sample of 76 non-financial firms selected from a population of 112 listed on the Nigerian Stock Exchange. Secondary data were extracted from the annual accounts of these firms. The data were analysed using the random effect model to evaluate the influence of short-term debt, long-term debt, and debt-to-equity ratio on corporate performance, measured by Net Profit Margin (NPM) and Tobin's Q (Tobq).

**Findings:** The findings of the study revealed that:

- Short-term Debt and Long-term Debt: Both forms of debt were found to be statistically insignificant when measured against NPM but showed a significant impact when assessed with Tobq.
- Debt-to-Equity Ratio: Similar to the debt variables, the debt-to-equity ratio was statistically insignificant against NPM but significant against Tobq.

These results suggest that while short-term and long-term debts, as well as debt-to-equity ratios, may not strongly influence NPM, they play a critical role in determining Tobq, an alternative measure of corporate performance.

**Conclusion:** The study concludes that short-term debt, long-term debt, and equity debt are appropriate capital sources for enhancing corporate performance when Tobq is used as the performance measure. However, firms should be cautious about using short-term debt, as it could negatively affect the firm's leverage position.

**Recommendations:**



- Capital Structure Strategy: Firms should minimise reliance on short-term debt to avoid leverage issues and focus on creating a balanced capital structure that includes an optimal mix of long-term debt and equity.
- Financial Literacy on Boards: The inclusion of financially literate members on the board of directors is crucial for making informed decisions regarding capital structure, thereby improving corporate performance.

**Key words:** *Capital structure, corporate performance, financial literacy, Non-financial firms, Nigeria.*

## 1.0 INTRODUCTION

A company's financial success indicates how well it has made use of its resources to produce income. An organisation's financial performance is a goal that must be reached. Evaluating financial performance will function as a standard for conducting inter-firm comparisons. While lack of performance is typically measured in terms of excessive expenditures, poor profitability, poor liquidity position, persistent corporate loss, and absence of self-reported innovations, financial performance can be evaluated in terms of growth in turnover, assets growth and efficiency, profitability growth, higher liquidity position, and stock price improvement (Denis, 2017). One of the most popular models that have been utilised by numerous scholars in the past to gauge the financial success of businesses worldwide is the return on equity (Ayeni-Agbaje et al. 2023).

The combination of debt and equity that a business uses to fund its operations and expansion is referred to as its capital structure. A financial idea known as the trade-off theory describes how an organisation's debt and equity financing relate to one another. It implies that a company's total worth can be negatively impacted by having too much or too little debt, and that there is an ideal level of debt that a business should have. Conversely, the pecking order theory of capital structure postulates that firms make financing decisions according to a predetermined sequence, with internal funds (retained earnings) being the favoured source and debt and equity coming in second and third. According to the hypothesis, businesses prefer equity financing during periods of negative cash flows and debt financing during periods of positive cash flows. Pecking order theory and trade-off theory are commonly employed to elucidate the capital structure choices made by companies and assist financial managers in identifying the ideal ratio of debt to equity for funding their activities. In actuality, though, businesses may depart from these theories for a variety of reasons, including risk tolerance among management, regulatory constraints, and market conditions. Mazanec (2023) examined the benefits and drawbacks of each capital structure theory that has been proposed. The papers from Tanko et al (2021); Nassar (2016); Detthamrong et al. (2017); Ajibola et al. (2018); Itopa et al (2019) Ayange et al (2021); PeiZhi & Ramzan



(2020), Tanui et al (2020) are the most pertinent ones concerning the capital structure and corporate performance.

Since owners and controlling parties are no longer in the same room, agency problems have arisen, leading managers to prioritise their interests over the interests of the owners and the firm's worth. To address this issue, the firm must have individuals with financial literacy to provide financial advice and identify any fraudulent activity involving capital structures that could negatively impact the firm's performance. In this study, we look at how a board member with financial literacy will affect financing decisions. Therefore, the best capital structure to increase a firm's performance is still up for debate among different researchers (Ganiyu, 2019, Nguyen & Nguyen, 2020). Furthermore, the body of literature defining the ideal capital structures to optimise the performance and value of South African consumer products enterprises is continually growing (Uremadu & Onyekachi, 2018). Consumer products companies in South Africa require the proper money to grow and increase their profitability, but the proper mix of capital sources that can be used to fund their operations is receiving very little attention (Uremadu & Onyekachi, 2018). An examination of related past research revealed that studies that have identified the best capital sources among the options that can be regarded as successful performance of South African consumer goods companies have not been investigated.

The research adds important additions to the existing corpus of knowledge. To begin, the research makes a conceptual contribution by bringing a moderator into the relationship between capital structure and the financial performance of nonfinancial firms in Nigeria. This is the first step in the research's overall goal to better understand this relationship. This study examined the moderation approach to explain the relationship between capital structure and the financial performance of nonfinancial firms. The majority of the previous research has concentrated on the direct relationship to explain the effect that capital structure has on corporate performance. Second, the research contributes to practise by providing a basis for appropriate capital structure decisions for managers of nonfinancial firms. This is accomplished by documenting the influence of the moderating effect of financial development on the relationship between capital structure and financial performance.

The aforementioned gaps highlight the need for a stronger alternative methodology to carry out this research, with a focus on Nigerian-listed non financial companies. This approach will allow researchers to determine the moderating effect of financial literacy on capital structure and corporate finance while utilising the proper methods and techniques for data estimation to produce better and more reliable results for meeting the study's stated objectives. Numerous studies have been done on the topic, but they are from developed economies, and to the best of the researchers' knowledge, only Tanko et al. (2021) examined the moderating effect of board literacy on the relationship between capital structure and financial performance of listed non financial firms in Nigeria; however, their study covered the years 2009 to 2018 and used



thirty Nigerian nonfinancial firms. Based on this, this study examines the moderating effect of financial literacy on the relationship between capital structure and the performance of seventy-six listed non financial companies in Nigeria. The remainder of the paper consists of a literature review, methodology, results, and conclusion and recommendation.

## **2.0 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

The primary purpose of this research is to evaluate the moderating effect of financial literacy on the relationship between capital structure and the corporate performance of listed non financial firms in Nigeria. The hypotheses are based on the theoretical foundation of agency theory and trade-off theory. Meanwhile, previous research on the impact of capital structure decisions on business performance has produced theoretical models of the relationship in the study. Nevertheless, the theories that are created anticipate a variety of various indications between the capital structure and the performance of the nonfinancial firm. Past research that investigated such impact of company capital structure on its performance has produced contradictory findings. Hence, this study aims to develop hypotheses in line with capital structure theories to fill the gap.

### **Long-term debt on corporate performance**

In addition, previous studies also reveal a positive and significant relationship between long-term debt and corporate performance (Le & Phan, 2017; Domnick, 2018; Ajibola, et al. 2018; Ogbonna and Ejem, 2019; Ramli et al., 2019; Muhammad et al., 2021). On the contrary, Avci (2016) discovered that non-current debt has a significant negative association with ROA and ROE. Also, Foo et al. (2015) researched the impact of Malaysian corporations' capital structures on their overall performance, and the results showed that long-term debt had a considerably negative effect on ROE. On the other hand, Ganiyu et al. (2019) just presented evidence that runs counter to the abovementioned findings. The research investigated the following hypothesis in light of the reasoning given earlier:

H1: Long-term debt significantly impacts corporate performance and nonfinancial firms' corporate performance.

### **Short-term Debt and Corporate Performance**

This number reflects the percentage of an organisation's total assets that are funded by loans and other obligations with terms of less than one year. To determine this, divide the total amount of current commitments by the total amount of assets. It gives a representation of the proportion of assets that are financed by debt with a short-term maturity. Similarly, the research conducted by Avci (2016) found that there is a negative and significant association between short-term debt and ROA and ROE. It was also proven by Foo et al. (2015) that short-term debt has a substantial adverse effect on ROE. The literature study that was just presented offers context for the following hypothesis, which will be evaluated. Empirically,



Njagi et al. (2017), Sudewi & Dewi (2017), and Tanko et al. (2021) revealed a similar conclusion that capital structure impacts corporate performance.

H2: Short-term debt significantly impacts the corporate performance of nonfinancial firms.

### **Debt to Equity and Corporate Performance**

Companies with a high debt-to-equity ratio are in greater danger of incurring a loss since it is generally accepted that a careless corporation will have a more significant level of liability when that liability is measured. If a firm has a significant level of debt, it may be unable to maximise the efficiency of its use of existing money for operational funding, or it may become a loss burden if it is unable to pay off its high level of debt (Alvian & Munandar, 2022; Slamet & Munandar, 2022). These are both potential outcomes. Because of this, investors are more likely to doubt the appearance of distrust when they are aware of companies with high debt levels, which might harm current companies' value because of unfavourable debt levels. The research conducted by Kahfi et al. (2018) demonstrates that the debt-to-equity ratio negatively impacts a company's value. In a similar vein, research conducted by Iqbal & Usman, (2018), Nguyen & Nguyen (2020), Sunardi et al., (2020) reveals that the percentage of debt to equity negatively impacts a corporation's value. In light of this reasoning, the following options can be suggested as possible solutions:

H3: The Debt-to-Equity Ratio significantly affects the corporate performance of nonfinancial firms.

### **The moderating effect of financial literacy on capital structure and corporate performance**

Empirically, Tanko et al. (2021) evaluated the ratio of long-term and short-term debts to total assets and equity to total debt ratio, and used financial literacy was assessed based on the percentage of board members with professional or academic qualifications in accounting, finance, and economics to investigate the moderating effect of board financial literacy on the link between company financial performance and capital structure among listed non financial enterprises in Nigeria. Their study demonstrated a significant connection between long-term debt and ROA. Additionally, other studies like Delić et al. (2016); Bose et al. (2017); Sohilauw et al. (2020), Ingale & Paluri (2022) demonstrate that financial literacy on boards can moderate the relationship between capital structures and boost firm performance.

H4: There is a moderating effect of financial literacy on the link between capital structure and corporate performance.

## **3.0 DATA AND METHOD**

This thesis will employ quantitative research design methods to test hypotheses to explain the moderating effect of financial literacy on the relationship between capital structure and corporate performance. The data for the study analysis will be extracted from the annual



financial statement of listed nonfinancial firms through the Nigerian Stock Exchange with the potential to identify the predictive powers of the selected variables (variables of capital structure) against the corporate performance (Net profit margin, and Tobin Q). The population and sample of the study consist of 112 listed nonfinancial firms on the Nigerian Stock Exchange (NSE) as at 31<sup>st</sup> December 2014. The present study used five filters to remove unsuitable companies from the population. Firstly, it excluded companies that voluntarily withdrew from the stock market from 2014 to 2023. Secondly, companies are put under technical suspension or deregistration by regulators. Thirdly, companies engaged in the merger and acquisition scheme throughout the study. Fourthly, the company, via its agencies, ultimately cannot provide adequate data on the variable of interest of this study or nationalised by the government. Based on these, the population was filtered in December 2023 to 76 firms as sample.

### Model Specification of the Study

The research drew two different econometric models to analyse financial literacy's influence on capital structure and corporate performance on the overall effectiveness of nonfinancial firms that are traded on the Nigerian Stock Exchange. The analysis was conducted using a panel data estimation model. The panel data regression model takes the form below:

$$NPM = \beta_0 + \beta_1 LTD_{it} + \beta_2 STD_{it} + \beta_3 DEQ_{it} + \beta_4 FLT_{it} + \beta_5 FSIZE_{it} + \beta_6 FAGE_{it} + \varepsilon_{it} \quad (1)$$

$$TobQ_{it} = \beta_0 + \beta_1 LTD_{it} + \beta_2 STD_{it} + \beta_3 DEQ_{it} + \beta_4 FLT_{it} + \beta_5 FSIZE_{it} + \beta_6 FAGE_{it} + \varepsilon_{it} \quad (2)$$

*The Moderation Effect Model:*

$$NPM_{it} = \beta_0 + \beta_1 LTD_{it} + \beta_2 STD_{it} + \beta_3 DEQ_{it} + \beta_4 (FLT_{it} * LTD_{it}) + \beta_5 (FLT_{it} * STD_{it}) + \beta_6 (FLT_{it} * DEQ_{it}) + \beta_7 (FLT_{it} * FSIZE_{it}) + \beta_8 (FLT_{it} * FAGE_{it}) + \varepsilon_{it}$$

$$TobQ_{it} = \beta_0 + \beta_1 LTD_{it} + \beta_2 STD_{it} + \beta_3 DEQ_{it} + \beta_4 (FLT_{it} * LTD_{it}) + \beta_5 (FLT_{it} * STD_{it}) + \beta_6 (FLT_{it} * DEQ_{it}) + \beta_7 (FLT_{it} * FSIZE_{it}) + \beta_8 (FLT_{it} * FAGE_{it}) + \varepsilon_{it}$$

Where:

NPM = Net Profit Margin

Tobq = Market value/total asset.

LTD = Long-term Debt

STD = Short-term Debt

DEQ = Debt to Equity

FSIZE = Firm Size

FAGE = Firm Age

i = Firm; t=year;  $\beta_1$ -5 = the coefficients;  $\mu$  = Error Term



Table 1: Definition and measurement of the variable

Variable	Acronym	Descriptive	Authors
<b>Dependent Variable</b>			
Net Profit Margin	NPM	Net Profit divided by sales.	Pinto et al. (2020)
Market Value	Tobq	Market value is divided by the replacement cost of total assets.	Mohammed & Migliori (2021);
<b>Independent Variable</b>			
Short-term Debt	STD	Measured as long-term debt divided by total assets	Ganiyu et al., 2019; Tanko et al. (2021)
Long-term Debt	LTD	Measured as short-term debt divided by total assets	Ajibola et al. 2018)
Debt to Equity	DEQ	Total equity divided by total debt	Pinto et al. (2020)
<b>Moderator</b>			
Financial Literacy	FLIT	The ratio of professional members on the board.	Tanko et al. (2021)
<b>Control variable</b>			
Firm Size	FSIZE	The logarithm of total asset	Tanko et al. (2021)
Firm age	FAGE	The lifespan of a firm from listings to date	Tanko et al. (2021)

**Source:** Author's compilation from various literature sources

## 4.0 RESULTS AND DISCUSSION

### Descriptive Statistics

In this section, we examine the descriptive statistics for both the independent and dependent variables of interest. Each variable is examined based on the mean, maximum and minimum. Table 2 displays the descriptive statistics for the study.

**Table 2: Descriptive statistics**

Variable	Mean	St.Dev.	Maximum	Minimum	N
NEPM	8.202	150.2	-168.66	4743.7	760
Tobq	0.038	0.013	0.011	0.072	760
STDE	43.140	25.657	0.238	257.3	760



LTDE	24.510	23.05	-25.00	192.28	760
DETE	2.292	4.596	-45.67	60.93	760
FINLT	0.391	0.488	0	1	760
FSIZE	6.519	7.817	-70.34	53.96	760
FAGE	24.311	13.52	1	55	760

**Notes:** In the case of net profit margin (NEPM) it is measured as net profit divided by sales. Tobin's q (Tobinq) is measured by market value divided by the replacement cost of total assets. Short term debt (STDE) is the long-term debt divided by total assets. Long-term debt is short-term debt divided by total assets. Debt to equity is total equity divided by total debt. Financial literacy is the ratio of professional members on the board.

In the above table 1, which is the full sample observation, The average of net profit margin level which proxy for dependent variables of the sampled Nigeria listed non financial firms was 82.02 The maximum value of NEPM level was -168.6 while the minimum was 4742.7. This therefore means that Nigeria listed non financial firm with net profit margin because due high-rate inflation is hinder while Nigeria nonfinancial firms are underperforming. In the case of short-term debt which is a proxy of the capital structure, the mean value of the sampled nonfinancial firms was 13. The maximum value was 0.238 while the minimum was 257.3. This therefore means that firms with higher board size above 0.238 are highly leveraged while firms with short term debt below 257.3 are lower leveraged.

In the case of long-term debt which was a measure of capital structure, the mean value of the sampled firms was 24.5%, The maximum value was 25.00 while the minimum was 192.28. This therefore means that companies with higher or equal to 24.5 are higher with long-term debt, while firms with the value below 45.67 are lower with long-term debt firms. Also, In the case of debt to total equity which was measured by total equity divided by total debt, the mean value of the sampled firm was 2.292%, The maximum value was 45.67. while the minimum was 60.93. This therefore means that companies with higher or equal to 45.67 are higher debt 60.92 firms while companies with the value below 60.93 are low debt firms.

The board financial literacy which is a proxy of the financial expertise of members of the board including the CEO and chairman, the mean value of the sampled firms was 0.391. The maximum value was 0 while the minimum was 1. This therefore means that firms with higher financial number of expertise above 0.391 are over financial expertise boards while firms with financial expertise below 1 are undersized of financial expertise.

Table 1 shows the control variable of Firm size (FSIZE) which FSIZE mean is 6.519, FAGE is 24.311 which shows weak dispersions of some observations from the mean and less



considerable variations reflecting the heterogeneity of our sample cutting across industrial groupings with max and min value of 70.34 and 53.96. respectively.

#### 4.2 Correlation Matrix

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 analysis**

Variable	NEPM	Tobq	STDE	LTDE	DETE	FINLIT	FSIZE	FAGE
NEPM	1.000							
Tobq	0.062	1.000						
STDE	-0.012	0.024	1.000					
LTDE	-0.023	0.006	-0.009	1.000				
DETE	0.018	-0.031	0.180	0.049	1.000			
FINLT	-0.026	-0.252	-0.005	0.016	0.046	1.000		
FSIZE	-0.009	0.015	0.062	-0.102	0.028	-0.099	1.000	
FAGE	-0.020	-0.068	0.217	0.122	0.086	0.134	0.038	1.000

In the case of net profit margin (NEPM) and capital structure correlation, the above results show that there exists a weak negative association between NEPM and short-term debt (-0.012). In the case of debt to equity and financial literacy, we observed that there exists a weak positive association between NEPM and Tobq and DETE/ FINLT respectively.

#### 4.4 Multicollinearity

The results in Table 4 do not show any collinearity problems between the study variables, as the VIF scores for all independent and control variables are lower than 2, far below the cut-off value of 10. Therefore, this study's model proves that the multicollinearity problem does not exist.

**Table 4: Results of the VIF Test**

Variable	VIF	1/VIF
STDE	1.08	0.923012
FAGE	1.07	0.934704
DETE	1.04	0.962720
LTDE	1.03	0.970573
FSIZE	1.02	0.983952



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Mean VIF                      1.05

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### Pooled Ordinary Least Square and Random Effect Estimation Result

In testing the hypotheses for this study, we used panel regression. The model focuses on estimating the effect of capital structure on corporate performance. This means that capital structure is our independent variable while corporate performance is our dependent variable. In table 5, we observed from model 1, R-squared value was 0.97 which means that about 97% of the systematic variations in the dependent variable was jointly explained by the independent variables. This implies that corporate performance in Nigerian nonfinancial firms cannot be 100 percent explained by capital structures indicator alone. The unexplained part of the dependent variable can be attributed to the exclusion of very important independent variables that can explain the dependent variable but are outside the scope of this study. The Hausman test value of 0.201 in model 1 (NEPM) and 0.000 in model 2 (Toning). Hence, in selecting from the two panel regression estimation results (fixed and random effect), the Hausman test was conducted and the test is based on the null hypothesis that the random effect model is preferred to the fixed effect model. Also the associated P-value of 0.000 shows that the panel regression model on the overall is statistically significant at 5% level, this means that the regression model is valid and can be used for statistical inference. In testing our hypotheses, we provide the below specific analysis for each of the independent variables.

**Table 5: Pooled OLS and Random Effect Estimation Result**

	OLS Pooled Regression		Panel Regression			
	Model 1 (NEPM)	Model 2 (Tobq)	Model 1 (Fixed Effect)	Model 1 (Random Effect)	Model 2 (Fixed Effect)	Model 2 (Random Effect)
C	21.675 (0.111)	0.041 (0.000)	54.795 (0.054)	18.971 (0.149)	0.052 (0.000)	0.042 (0.000)
STDE	-0.081 (0.681)	0.000 (0.248)	-0.638 (0.035)	-0.075 (0.702)	0.000 (0.525)	0.000 (0.420)
LTDE	-0.154 (0.469)	8.741 (0.620)	-0.161 (0.727)	-0.152 (0.476)	0.000 (0.028)	0.000 (0.022)
DETE	0.836 (0.459)	-0.000 (0.459)	2.152 (0.235)	0.796 (0.480)	-0.000 (0.476)	-0.000 (0.164)
Firm size	-0.252 (0.686)	-0.000 (0.799)	-0.317 (0.779)	-0.199 (0.748)	-0.000 (0.355)	-0.000 (0.526)



FAGE	0.373 (0.723)	-0.000 (0.188)	0.898 (0.415)	-0.174 (0.637)	0.001 (0.000)	0.000 (0.000)
Firm Effect	Yes	Yes	Yes	Yes	Yes	Yes
Time Effect	Yes	Yes	Yes	Yes	Yes	Yes
F-statistics			5(0.260)	5(0.918)	5(0.000)	5(0.000)
Adj. R <sup>2</sup>			0.097	0.060	0.147	0.131
Observation (N)	760	760	760	760	760	760
Number of firms	76	76	76	76	76	76

**Note:** In the case of net profit margin (NEPM) it is measured as net profit divided by sales. Tobin's q (Tobq) is measured by market value divided by the replacement cost of total assets. Short term debt (STDE) is the long-term debt divided by total assets. Long-term debt is short-term debt divided by total assets. Debt to equity is total equity divided by total debt. Financial literacy is the ratio of professional members on the board. Also, (1) bracket [ ] are p-values (2) \*\*, \*\*\*, implies statistical significance at 5% and 1% levels respectively.

In testing our hypotheses, on the Pooled OLS regression, we provide the below specific analysis for each of the independent variables. Short-term debt [OLS = -0.081(0.681); 0.000 (0.248)] as an independent variable to corporate performance appears to have a negative and insignificant influence on CP at 10% level on model while positive and significant in model 2. This therefore means we should accept hypothesis 1 and reject hypothesis 2. This means that an increase in short term debt financing of firm business would not be useful in significantly impacting on short run when measured by NPM and but has effect on Tobq. This result agrees with prior empirical results which show that short term debt is not a major driver of business financing. (). Most specifically, the results did not tally with previous findings of various researchers that report short term debt has a significant impact on corporate performance ().

Long-term debt for OLS model [(NEPM = -0.154 (0.469) and Tobq = 8.741(0.620)] as an independent variable to CP appears to have a negative and insignificant in model 1 and positive and statistically significant in model 2 on CP at 1% and 10% level. This means we should accept hypothesis 1a (H2: long-term debt does not have a significant impact on corporate performance). This means that a decrease in Long-term debt financing of nonfinancial firms will not leverage the business in the long run, while in model1b the result has a positive and statically insignificant impact on CP. This result agrees with prior empirical results which show that long term debt is a major driver of business financing ().

Debt to equity for model 1 and 2 [OLS = 0.836 (0.459 and (OLS = - 0.000 (0.45)] as an independent variable to CP seems to have a positive and statistically insignificant and



negative and insignificant influence on CP at 10% for both models. It means we should accept hypothesis 3a and 3b. This means that an increase in debt-to-equity financing of nonfinancial firms leverages the business, while in mode3b the result has a negative and insignificant impact on CP. This result agrees with prior empirical results which show that DETE is a major driver of business financing ()

### ***Panel Regression result for model 1 and 2.***

On the panel regression model, short term debt of model 1 and 2 for Random Effect [(NEPM -0.075 (0.702) and Tobq (0.042 (0.000))] as an independent variable to CP appears to have a positive and significant influence on CP at 5% level. This means the choice of short-term debt does not significantly increase the leverage of nonfinancial firms' business. Hence, we accept hypothesis 1 and reject H2 This result agrees with previous findings of various researchers that reported that STDE has significant or insignificant impact on CP (Tanko et al., 2021; Thomas and Gupta, 2021). Also, long-term debt [NEPM (-0.152 (0.476) and Tobq = 0.000 (0.022)] as an independent variable has a negative and insignificant impact on CP at 5% level. This means the choice of short-term debt does significantly increase the probability of firms engaging in financial structure. This therefore means we should accept hypothesis 1 This result agrees with prior empirical results which show that LTDE is a major pointer of CP. Most specifically, the results tally with previous findings of various researchers that report LTDE has significant impact on CP (Ramli et al., 2019; Muhammad et al., 2021).

Debt to equity of [NEPM = 0.796 (0.480) and Tobq = -0.000 (0.164)] as an independent variable to CP appears to have a positive and insignificant impact at 10%, and negative and statically insignificant influence on CP at 1% level on Tobq. This means the choice of DETE does not significantly increase the nonfinancial firms' leverage with the 2 model of CP. This therefore means we accept hypothesis 3. This result agrees with prior empirical results which shows that DETE is a major indicator of CP. Most specifically, the results tally with previous findings of various researchers that report DETE have insignificant impact on CP (Iqbal & Usman, 2018, and Sunardi et al., 2020).

### ***Random Effect Estimation Result (Moderating Effect)***

Testing for whether a particular can influence an existing issue in a study is a very important factor in corporate governance study (Chou, et al., 2022). Therefore, a moderating effect of financial literacy has the potential to positively or negatively impact firm performance metrics. This is dependent on the Board of Directors' (BOD) financial expertise with regard to capital structure, which will positively impact corporate performance. Thus, the independent variables are multiplied by the moderator variable to generate the interaction terms. In this study, three interactions are established, with each independent variable interacting with the moderator variable to create the second model. The moderating effect of FLIT is hypothesized to influence the direct relationship between capital structure (Short-term debt, long-term debt to equity), and corporate performance (NEPM and Tobq).

**Table 6: Panel Regression Result for Model (Moderation Effect)**

	Model 3 (Fixed effect)	Model 3 (Random effect)	Model 4 (Fixed Effect)	Model 4 (Random effect)
c	45.379 (0.112)	18.442 (0.184)	0.053 (0.000)	0.0443 (0.000)
STDE	-0.674 (0.038)	-0.054 (0.796)	-0.000 (0.510)	0.000 (0.277)
LTDE	0.169 (0.632)	-0.055 (0.782)	0.000 (0.267)	0.000 (0.320)
DETE	2.160 (0.233)	0.906 (0.462)	0.000 (0.389)	0.000 (0.797)
FLIT*STDE	-0.818 (0.063)	-0.093 (0.731)	-0.000 (0.000)	-0.000 (0.000)
FLIT*LTDE	0.583 (0.260)	-0.048 (0.881)	-4.852 (0.881)	-0.000 (0.390)
FLIT*DETE	0.012 (0.999)	-0.443 (0.756)	-0.000 (0.048)	-0.000 (0.074)
FSIZE	-0.282 (0.803)	-0.208 (0.736)	-0.000 (0.329)	-0.000 (0.174)
FAGE	-0.373 (0.678)	-0.186 (0.609)	-0.001 (0.000)	-0.000 (0.000)
Firm Effect	Yes	Yes	Yes	Yes
Time Effect	Yes	Yes	Yes	Yes
F-statistics	5(0.196)	5(0.992)	5(0.000)	5(0.000)
Within R- Squared	0.0162	0.0068	0.2184	0.1961
Observation (N)	7600	7600	7600	7600
Hausman Test	12.87 (0.116)	12.87 (0.116)	2.08 (0.979)	2.08 (0.979)

**Note:** In the case of net profit margin (NEPM) it is measured as net profit divided by sales. Tobin's q (Tobq) is measured by market value divided by the replacement cost of total assets. Short term debt (STDE) is the long-term debt divided by total assets. Long-term debt is short-term debt divided by total assets. Debt to equity is total equity divided by total debt. Financial literacy is the ratio of professional members on the board. Also, (1) bracket [ ] are p-values (2) \*\*, \*\*\*, implies statistical significance at 5% and 1% levels respectively.

Table 6 shows the results of panel data regression for the moderating effect of financial literacy on the relationship between capital structure. The objective is to determine if the interactive term of financial literacy with capital structure variables (FLIT\*STDE, FLIT\*LTDE, and FLIT\*DETE) increases the corporate performance (NPMA and Tobq) of nonfinancial firms in Nigeria. Evidence from the table provides support for this moderating relationship. Overall, the moderation  $R^2$  is 62% and reveals no improvement in the model compared to the  $R^2$  value of 97% obtained from the direct relationship between capital



structure and corporate performance in Table 5. Hence, Table 6 shows the estimation of moderating influence of FLIT and (NEPM). Also, in the model 4 of the moderation shows  $R^2$  is 68% and reveals no improvement in the model compared to the  $R^2$  value of 60% obtained from the direct relationship between capital structure and corporate performance in Table 5. Hence, the increase in the value of  $R^2$  by 8% is evidence of a moderation effect and signifies that the moderation model is a better predictor of NEPM. Thus, Table 6 shows the estimation of moderating influence of FLIT and Tobq.

## **5.0 CONCLUSION AND RECOMMENDATION**

The study concluded that Short-term debt has an insignificant impact on corporate performance; while long term debt and debt to equity have positive effect on corporate performance. Also, board financial literacy has a positive and statistically significant effect in moderating the relationship between capital structure and corporate performance. The conclusion is implicit at short period time financing because the consequence is that short-term loans have repayment terms of up to a year and often accrue interest payments, regardless of whether or not the company makes a profit during that time period. The study also found that long-term debt, as well as debt to equity, are adequate financing options that should be taken into account for the firms' efficient operation.

The study's recommendations, based on the findings, were to avoid short term financing in favour of developing new interest rates to revive failing local businesses, including any impacted nonfinancial companies. The study also suggested that companies refrain from using short term debt to fund their activities in Nigeria until they take corrective action to address the ongoing harm to their performance. The study advanced knowledge by demonstrating that the only suitable capital sources for the successful corporate performance of nonfinancial companies in Nigeria is long-term debt and debt to equity. Finally, the findings of the study also have some suggestions for government policy. Hence effective legislation on economic variables like interest by the apex bank for nonfinancial firms to ease sources of financing in their various businesses. Also, for factors that were shown to have a negligible effect, such as the financial development, short-term debt, long-term debt and debt to equity. The study has managerial implications that can help stakeholders. Companies should continue to adhere to the financial structure of the firm and regulation of the central bank of Nigeria based on the policies that are detrimental to the financial survival of the organization.

### **Limitation of the Study**

The scope of this study is limited to listed nonfinancial firms in Nigeria and utilised independent variable of short-term debt, long-term debt and debt to equity to examine the effect of capital structure on the corporate performance of the listed non financial companies in the Nigeria. The periods covered were between 2013 and 2023. Further research should therefore cover the period up to 2024 and be conducted in Nigeria and other African



Countries using similar variables combinations and nonfinancial firms. In addition, future study can also consider financial firms. As a consequence of this, the findings of the study cannot be generalised. In addition, there were a limited number of local studies that had used all nonfinancial firms used in this study to explain the moderating effect of financial literacy to moderate the relationship between capital structure and corporate performance of nonfinancial firms in Nigeria.

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