

Capital Structure, Liquidity and Financial Performance of Listed Consumer Goods Companies in Nigeria

By

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ABSTRACT

The study examines the moderating effect of liquidity decision on the relationship between capital structure and performance of listed consumer goods companies in Nigeria. The data were extracted from the annual reports and accounts of the companies for a period of 5 years (2018-2022). The study employed ex-post factor research design and Stata version (17) was used in analysing the data. The result shows that TDTA and TDTE are statistically not significant on financial performance measure by ROA. However, the study findings reveal that TDTALIQD, TDTELIQD, FS and FA were found to be significant with ROA at 5% and 1% level of significant in moderated model respectively. Finally, the findings indicated that liquidity decision moderate the relationship between endogenous and exogenous variables because it changes the relationship between direct and indirect result that the direction of the result changed from insignificant to Significant on all the independent variables employed. It is recommended that companies should pay more attention to their liquidity position when making their capital structure because it has significantly influenced its financial performance. While a question should be taken by the management of the companies on employing equity and debt without taking into cognizance of their liquidity position on their capital structure, because any increase in companies' debt/equity ratio in their capital structure affect their performance insignificantly.

1. Background to the Study

Corporate firms faced two main decisions which can ensure their survival; these decisions are financing and investment. Effective capital structure mixes help increases business investment opportunities, increases corporate performance, and result in business sustainability (Gambo, Kurfi & Bello 2021). Imelda, et al., (2020), argued that corporate performance is characterized by its high market value and an increasing company's share price. An increase in share price indicates an increase in the profits and wealth of the shareholders. This provides a positive indication regarding the company's good performance so that it can attract investors to invest in it. The company performance is influenced by several factors,

including the composition of the company's capital structure and liquidity decision. The composition of the optimum capital structure does not only make the company survive and develop, but also improves its performance so that it can compete in a competitive business environment. Companies using debt financing in the capital structure can provide a signal that it has a good prospect and performance so that it also has a good ability to pay its debts.

Though, various organization have their planned financial decision that is differed from one firm to the other in enhancing effective and efficient capital structure (Senan et al., 2021). The Literature has shown that various theories were postulated to explain the idea behind selection of an optimal capital structure and this

depends on the type of organizational settings (Mansour et al., 2023). Based on this perspective, the differences in preceding literatures may be slightly explained by challenging theories. From the viewpoint of Modigliani and Miller's (MM) irrelevance theory suggests that capital structure is irrelevant to corporate performance (Mansour et al., 2023) and has relied on assumptions that fit a perfect market but do not work in the real world. Instead, other theories like agency, trade-off, signalling, and pecking order, have been principally based their argument on de-facto assumptions compatible with imperfect capital markets (Xin et al., 2023).

Despite the above diverse assumptions, capital structure is very important in enhancing corporate value, profitability, and performance but literature has shown paucity on one theory that make clear depiction on the association between capital structure and firm performance. However, Agency theory have long being argued that the percentage of debt in a firm's capital structure influences agency conflicts between agents and principals by instigating agents/managers to undertake financial decision in the principals'/ shareholders' interests, which means that the debt/equity level in capital structure influences firm performance (Dada & Ghazali 2016). The relationship between debt and equity ratio and firm performance has been attracted both theoretical and empirical debate (Eman, et al., 2023).

The recent literature reviewed produced inconsistent findings and indicated that this relationship is related to specific circumstances. Based on the above backdrop the following

study intended to investigate whether liquidity decision can moderate the relationship between capital structure and firm performance of listed consumer goods companies in Nigeria. Liquidity can moderate the relationship between capital structure and financial performance. Due to the previous studies on liquidity and firm financial performance these includes: Wuave et al. (2020); Effiong and Enya (2020); Chuwdhury and Zaman (2018); Murithi and Waweru (2017); Salim and Bilal (2016); Mwangi (2014) and Maaka, (2013)

Various studies have been conducted on capital structure and firm's financial performance in Nigeria and the entire global arena on different economics sector. Such researches notably the work of (Abbas, 2019; Singh, et al. 2019; Alam, et al. 2019; Diannisa, et al. 2019; Ganiyu, et al. 2019; MacCarthyet, el al. 2019; Abughniem, et al. 2020; Thanh, et al. 2020; Paramitha, 2020; Nathan, et al. 2020; Imelda et al. 2020; Vargas, et al. 2021; Seckanovic, 2021; Kumara, et al. 2021; Bhutt, et al. 2021; Ngatno, et al. 2021; Fauzi, et al 2022; Evbayiro-Osagie, et al. 2022; Mansour, et al. 2023; Ahmad et al. 2023; & Anozie, et al. 2023) etc. conducted their research on capital structure and firms performance and the result shows that firm's capital structure significantly influences firm's financial performance. While, on the other hand, studies were found to be insignificant includes: (Braik, et al. 2018; Patrisia, 2020; Lawa, et al 2021; Hameed, et al. 2021; Tanko et al. 2021; Andrew, et al. 2021; Dat, 2022; Olusola, et al. 2022; Adeoye, et al. 2022; Ghardallou, 2022 & Shubita, 2023). From the empirical studies reviewed, one believable

explanation for this ambiguity may be the paucity on the existing literature to model the contingent role that the liquidity decision of a firm plays on the relationship between capital structure and firm performance (Gambo et al., 2021). As such this study is intended to examine the moderating effect of liquidity decision on the relationship between capital structure and firm performance of listed consumer goods companies in Nigeria.

2. Theoretical Frame Work

The study is based on two theories; the trade-off theory and Agency cost theory

2.1.1 Trade-off Theory

The study adopted trade off theory developed by Modigliani & Miller (1977) according to this theory the debt is very essential because interest is treated as expense and tax deductible, but there is also a fear of bankruptcy cost. Gaud et al., (2005) in addition to MM theory presents their views that to achieve optimal capital structure by cost and benefit analysis of debt financing is the theory analysis. Moreover, effective debt and equity combination leads to maximum firm performance. Therefore, concluded the existence of relationship between capital structure and firm performance. Above theory concludes in favour of capital structure and its impact on firm performance if firms utilize the debt and equity combination in an efficient and effective way.

2.1.2 Agency Cost Theory

This theory developed by Jensen and Meckling (1976), explains that an optimal capital structure is attainable by reducing the costs resulting from the conflicts between the managers, owners and debt holders. They

further argued that debt can be used to control the managers' behaviour by reducing the free cash flows within the firm by ensuring prompt payment of interest payments. This minimizes the cash at the disposal of managers likely to be misappropriated through personal interests or still waste the cash in organizational inefficiencies at the expense of the firm's objectives. Accordingly, Grigore and Stefan-Duicu (2013), argued that indebtedness affects agency costs three ways, that is, control and justification costs, high risk investments remuneration costs demanded by the creditors and bankruptcy costs. Firms thus have interest to indebt until the point at which the increase of its value owed to the financed investments will be equal to the marginal costs generated by the indebtedness. Therefore, the optimal level of indebtedness is the one that allows the minimization of overall agency costs, consistent with Jensen and Meckling (1976).

2.2 Literature Review and Hypotheses Development

This section reviews various studies on the relationship between capital structure and financial performance of listed companies and also reviews the studies on liquidity on financial performance of various firms across the globe.

2.2.1 Empirical Review

Dat (2022) studied the impact of capital structure on firm performance of food and beverage listed companies in Vietnam from the period of 2017-2021. ROA, ROE and EPS were used to measure the dependent variable (performance). The ratio of total debt to total assets (DA), total debt to total equity (DE),

short-term debt to total assets (SDTA) and long-term debt to total assets (LDTA) were equally used to measure the independent variable (capital structure) and firm size and growth were also used as control variables. The data of the study were extracted from secondary source and multiple regressions were applied in analysing the data. The finding reveals that negative correlation existed between ROE and capital structure, but also shows a insignificant relationship between SDTA and SDTA. The study fails to capture conceptual frame work also no evidence of pre- estimation test revealed was conducted. Fauzi, et al. (2022) investigates the effect of capital structure on the performance of telecommunications firms. The firm performance was measured by return on assets while capital structure was measured with the ratio of debt total assets from period of 2010-2020 proceed with a dynamic data panel regression model using the generalized method of moment approach. The finding shows that capital structure has significantly impact to the firm performance in developed and developing countries as well as in integrated and wireless telecommunication firms. Accordingly, Anozie, et al. (2023) studied the impact of capital structure on the financial performance of Nigerian oil and gas companies from 2011-2020. Using ex-post facto research methodology, the short-term debt to total asset, long-term debt to total asset, total debt to total equity, and return on asset variables were investigated as proxies for capital structure and financial performance, respectively. Descriptive statistics and panel regression analysis were used to analyse the data. The

result shows that long-term debt to total assets has a negative significant influence on return on assets, short-term debt to total assets and total debt to total equity had positive insignificant impacts.

Evbayiro-Osagie et al. (2022) examines the impact of capital structure on return-on-assets (ROA) performance of non- financial firms in Sub-Sahara Africa for a period of nine 9 years (2012-2020). The capital structure variables applied is long term debt to equity (LTDQ), total debt (TD), total debt to equity (TDQ), and total debt to total assets (TDTA) as well as their ROA as performance measurement. The panel data analysis technique was employed. It was found that LTDQ, TD and TDQ have positive impact on ROA performance; while TDTA has a negative impact on ROA performance. Ghardallou (2022), examine the roles of financing decisions and firm performance of 120 sample non-financial companies listed on Tadawul stock exchange during the period 2017–2020. Quantile regression methodology was employed Financial performance was measured using return on assets, return on equities and Tobin's Q. The result reveals that debts to equity ratio negatively influence firms' performance, whereas equity financing ratio increases business profitability. Olusola, et al. (2022) examines the impact of capital structure on a firm's performance in Hong Kong for period of 2014-2018. A panel data model was employed and the empirical model used return on assets (ROA) as a proxy for performance, while total debt (TDR) was measured for capital structure. The result showed a small effect in the negative direction. Therefore, the

results of the impact of Capital structure on performance proved to be inconclusive.

Saha, (2021) studied the impact of liquidity decision on managerial performance of private commercial banks in Bangladesh. The findings from the multiple regression shows that liquidity decision indicate by current ratio is positive and insignificantly associated with net profit ratio and return on equity, but negative and insignificantly associated with ROA and ROI. Moreover, networking capital ratio is negative and insignificantly associated with net profit, return on asset and return on equity but positive and insignificant with return on investment of the sample banks under study. Abdulrahman, (2021) examine the moderating effect of liquidity on the relationship between capital structure and profitability of listed deposit money banks in Nigeria from 2010-2019. Descriptive research design and random effect was employed for hypotheses testing. The findings indicates that advances, capital investment was negative and positive insignificant on ROA respectively. Retain earning was negative but significantly influence ROA. The overall finding shows that liquidity is significantly influence commercial banks in Nigeria. Based on the literature analysis, the following null hypotheses were developed:

H0₁: Total debt to total asset has no significant effect on the performance of listed consumer goods companies' firms in Nigeria.

H0₂: Total debt to total equity has no significant effect on the performance of listed consumer goods companies' firms in Nigeria.

H0₃: Liquidity has no moderating effect between total debt to total asset and the financial performance of listed consumer goods companies in Nigeria.

H0₄: Liquidity has no moderating effect between total debt to total equity and the financial performance of listed consumer goods companies in Nigeria.

3. Research Methodology

The study employed ex-post facto research design, it considers appropriate for the study because the data were collected from the annual reports and account of firms under study. The population of the study comprise of all (26) listed consumer goods firms in the floor of Nigerian Exchange Group from 2018-2022. The sample was drawn using filtering criteria, after application of the sample seven companies were filtered out and nineteen companies that meet the criteria were considered as sample of the study. Panel multiple regressions were used for data analysis after employing the assumption of regression using Stata Version 17.

Table 3.1 Sample of the Study and Remove Firms

S/NO	Consumer Goods Companies	Companies Sticker	Year of Listing
1	Cadbury Nigeria Plc	CADBURY	1976
2	Champion Breweries Plc	CHAMPION	1983
3	Dangote Sugar Refinery Plc	DANGSUGAR	2007
4	Bua Food	BUA FOODS	2011
5	Flour Mills Nigeria Plc	FLOURMKILL	1979
6	Golden Guinea Breweries Plc	GOLDBREW	1979
7	Guinness Nigeria Plc	GUINNESS	1979
8	Honeywell Flour Mills Plc	HONYFLOUR	2009
9	International Breweries Plc	INTBREW	1995
10	Northern Nigeria Flour Mills Plc	NNFM	1978
11	Nestle Nigeria Plc	NESTLE	1973
12	Nascon Allied Industries Plc	NASCON	1992
13	Nigerian Breweries Plc	NB	1973
14	Nigerian Enamelware Plc	ENAMELWA	1978
15	PZ Cussons Plc	PZ	1974
16	Uniliver Nigeria Plc	UNILIVER	1973
17	Union Dicon Salt Plc	UNIONDISCON	1993
18	McNichols Plc	MCNICHOLS	2009
19	Vita form Plc	VITAFORM	1978

Source: Nigerian Stock Exchange Fact Book 2022.

The above table 3.1 shows the sample size of 19 companies out of the total population considered in this study with their companies' stickers and their listing age. Seven (7) consumer goods companies were filtered out

for not meeting the filtering criteria they include: Multi-Tax Integrated Food Plc, DN Tyre & Rubber Plc, 7UP Bottling Company, Big Treat Plc, Premier Breweries, U T C Nig Plc and Vono Products Plc

Table 3.2 Variable Measurement

Variables	Abbreviations	Operationalizations
Financial Performance	ROA	Income divided by Total assets (Bello & Umar, 2019; Kajola, Adewumi & Oworu, 2015).
Equity Ratio	TD/TE	Total equity divided by Total Equity (Usman, 2019 & Afroze & Khan, 2022).
Debt Ratio	TD/TA	Total debt divided by Total Assets (Salim &Yadav, 2012; Afroze and Khan, 2022).
Liquidity	LIQ	Current assets/Current Liability Albitar 2015; & Das 2017)
Firm Size	FS	Logarithm of Total assets (Abeywardana & Panditharathna 2016; & Das 2017)
Firm Age	FA	Listing years (Das 2017; Ofoegbu & Odoemelam 2018)

Source: Rresearcher, 2024.

3.2 Model of Specification

$$Z_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mu_{it} \dots \dots \dots \text{Equation (i)}$$

From the above general multiple linear regression models, the equation was modified

to reproduce the panel regression model for the study. This study focused on two econometric models, one of which is shown in equation 1 below, and investigates the direct link between capital structure and financial performance.

$$ROA_{it} = \alpha + \beta_1 TDTA_{it} + \beta_2 TDTE_{it} + \beta_3 LIQ_{it} + \beta_4 FS_{it} + \beta_5 FA_{it} + \mu \dots \dots \dots \text{Equation (1)}$$

$$ROA_{it} = \alpha + \beta_1 TDTA_{it} + \beta_2 TDTE_{it} + \beta_3 LIQ_{it} + \beta_4 TDTA * LIQ_{it} + \beta_5 TDTE * LIQ_{it} + \beta_6 FS_{it} + \beta_7 FA_{it} + \mu \dots \dots \dots \text{Equation (2)}$$

The second model above, equation 2, explains the role of liquidity as a moderator variable on the relationship between capital structure and firms' financial performance in the study based on the suggestion of (Baron & Kenny, 1986).

Where:

FP = ROA_{it} (Return on Assets)

TD/TA_{it} = Total Debt/Total Assets

TD/TE_{it} = Total Debt/Total Equity

LIQ_{it} = Liquidity Decision

FS_{it} = Firm Size

Fage_{it} = Firm Age

$\beta_1 - \beta_5$ = Coefficient of the explanatory variables (i.e., the slope)

α = Intercept

ϵ = Error term

i = Individual firms

t = Time period (i.e., the years)

Source: (Gambo et al, 2021).

4. Discussion of Findings

4.1 Normality Test

The study adopted Shapiro Wilk test for normal data to find statistical evidence as to whether the data of the study variables follow the trend of normal curve or not. The results of the data normality test of the variables are presented below:

Shapiro–Wilk W test for normal data

Variable	Obs	W	V	Z	Prob>z
roa	95	0.49202	40.187	8.171	0.00000
tdta	95	0.89744	8.114	4.631	0.00000
tdte	95	0.77584	17.734	6.361	0.00000
liq	95	0.90221	7.737	4.526	0.00000
tdta*liq	95	0.39998	47.468	8.539	0.00000
tdte*liq	95	0.93716	4.971	3.548	0.00019
fs	95	0.94741	4.161	3.154	0.00081
fa	95	0.84814	12.014	5.500	0.00000

Source: Generated from Sampled Firms Annual Reports using Stata Version (17), 2024.

From the normality table above, the Shapiro wilk residuals p-value of the entire variables are less than 0.05 at 5% level of significance. Thus, the null hypotheses that the residuals of the model variables for the study are normally distributed are accepted.

4.2 Heteroskedasticity Test

The heteroskedasticity test was conducted to check whether the variability of the error term in the regression function is homoscedastic (same variance). Breusch–Pagan/Cook–

Weisberg test for hetero-skedasticity

Assumption: Normal error terms was performed. The result shows value of Chi² of 8.99 with p-value of 0.003, which is significant at 1%, indicating that the data is not homoskedastic as shown in the table below. This means the original OLS could not suit the study. Hence, robustness was run and shows that the model can be relied upon for drawing statistical inferences (Gujurati, 2004).

Heteroskedasticity Table:

Breush-Pagan/Cook-Weisberg

Chi2	8.99
Prob.> Chi2	0.0027

Source: Generated from Sampled Firms Annual Reports using Stata Version (17), 2024.**4.3 Descriptive Statistics**

Variable	Obs	Mean	Std. dev.	Min	Max
roa	95	0.0900189	0.406763	-2.3599	1.87
tdta	95	0.5899095	0.2241467	0.0275	1.7939
tdte	95	1.676316	1.24655	0.2401	7.8201
liq	95	1.150898	0.7120995	0.0002	3.5924
tdtaliq	95	0.8471895	1.184652	0.0003	8.63
tdteliq	95	1.760059	1.245673	0.0001	6.7553
fs	95	7.979437	0.965002	4.7581	9.7054
fa	95	32.51579	11.53151	9	46

Source: Generated from Sampled Firms Annual Reports using Stata Version (17), 2024.

The above descriptive statistic table describe the performance (ROA) of listed consumer goods companies in Nigeria. Their average ROA is 0.0900 with std. div. of 0.4068, meaning that the data deviate from the mean by 0.4068, indication of no wide range of dispersion between the mean and std. div. As such the mean value shows that the performance of listed consumer goods companies is 09.00%, an indication of one of the listed firms under study made a profit of 0.9 he companies recorded a negative minimum of -2.3590 and maximum of 1.87.

However, the total debt to total asset has a mean of 0.5899 indications that tdta of firms recorded 0.5899% within a particular year with the minimum of 0.0275 and maximum of 1.7939. The std. div. recorded of 0.2242 indication of lower level of dispersion between the mean value of tdta and ROA of the listed consumer goods companies. The mean value of tdte of 1.6763 and a SD of 1.2466, indicates no wide range of dispersion between the mean value and SD of tdte of listed firms under study, and produce the minimum value of td/te of 0.2401

with a maximum of 7.8201. Furthermore, the means value of liquidity decision (moderator) is 1.1509 with a std. div. of 0.7121 shows a no wide range of dispersion between the mean value and the std. div of the moderator (liquidity), with a minimum 0.0002 and a maximum of 3.5924. Moreover, the mean value of tdtaliq is 0.8472 with a std. div. of 1.1847 indication of wide dispersion between the mean value and moderated tdtaliq of listed consumer goods firms; it recorded a minimum of 0.0003 and a maximum of 8.63. The mean value of tdteliq is 1.7601 with a std. div. of 1.2457 indication of no wide dispersion between the mean value and moderated tdteliq of listed consumer goods firms; it recorded a minimum of 0.0001 and a maximum of 6.7553. However, the mean value of firm size is 7.9794 and the std. div. of 0.9650, with a minimum value of 4.7581 and maximum of 9.7054. The descriptive statistics of firm age recorded the mean of 32.5158 and a std. div. of 11.5315 with a minimum of 9 and maximum of 46 years on listing of consumer goods companies in Nigeria

4.4 Correlation Matrix

Variable	roa	tdta	tdte	liq	fs	fa	VIF	1/VIF
roa	1.0000							
tdta	0.2277	1.0000						1.30 0.766985
tdte	0.0571	0.4600	1.0000				5.03	0.199001
liq	0.1397	-0.0546	-0.2361	1.0000			3.15	0.317809
fs	0.3591	0.0120	-0.0405	0.0703	1.0000			1.08 0.922353
fa	-0.2347	-0.1382	-0.1473	-0.0477	-0.0738	1.0000	1.06	0.9.44057
tdte*liq								5.52 0.181145
tdta*liq								1.12 0.894239
Mean VIF					2.61			

Source: Generated from Sampled Firms Annual Reports using Stata Version (17), 2024.

The correlation coefficient shows the association between the dependent, intervening and explanatory variables. The values of the correlation coefficients range from -1 to 1. The sign of the correlation coefficient determines the bearing of the relationship, whether positive or negative. The absolute value of the correlation coefficient indicates the strength, with larger values indicating strong coefficient between ROA and tdte of 0.0571 is weak, implies that 1% increases in tdte will increase ROA by 5.7%. Also, the correlation coefficient between liquidity and ROA is weak of 0.1397, implies that a percentage of increase in firm liquidity result in increase in ROA by 13.97%. Firm size recorded a moderate coefficient of 0.3591, meaning that an increase in 1% of firm size lead to increase in ROA by 35.91%. The table indicated a coefficient of firm age by -0.2347; implies that an increase in firm age result in decrease of firm's relationship with ROA by -0.2347.

The result from correlation table indicated that the correlation coefficient among the explanatory variables reveals a positive and negative relationship. However, from the above correlation result reveals that both positive/negative, strong, moderate and weak

relationships. The correlation coefficients on the main diagonal are 1.0, because each variable has no perfect positive linear relationship with itself. The above correlation table indicates a weak positive association between the tdta and ROA from the coefficient of 0.2277. This implies that an increase in tdta by 0.2277 will lead to proportionate increase ROA. The table also shows the correlation relationship existed among the explanatory variables. The finding shows no extreme multicollinearity among the regressors despite the negative association of some explanatory variables. The study leveraged upon the assumption that none of the variable reaches a threshold of 0.8, as suggested by Hair, et al., (2010). The table further explain the multicollinearity result of collinearity of the variable using VIF and tolerance. The theoretical demarcation of the VIF ranges from 1 to 9 as suggested by some scholars and 1 to 5 by other scholars. However, this study adopted the range of 1 to 9 for the VIF of each explanatory variable. Therefore, any variable with VIF greater than 9 indicates the existence of Multicollinearity, this in in line with Gujarati (2004).

4.5 Regression Result of Moderation Effect

Panel Multiple Regression Results (PCSEs)

Dependent Variable ROA

Variables	Coefficient	Z-statistics	P-value
tdta	0.4089163	1.25	0.212
tdte	-0.0999793	-1.88	0.060
liq	-0.0497573	-0.97	0.334
tdta*liq	-0.0343708	-2.69	0.007***
tdte*liq	0.1055681	2.15	0.031**
fs	0.1511771	2.13	0.033**
fa	-0.005723	-3.59	0.000***
_cons	-1.103251	-1.66	0.096

No. of observations 95, No. of groups 19, R-squared= 0.2483, Wald Chi2 Statistics = 67.31

F- Statistics = 0.000, Hausman Test Chi2 = 40.14

P-value of Chi2 = 0.0000

Note: ***, **, denotes 1% and 5% level of significance

Source: Generated from Sampled Firms Annual Reports Using Stata Version (17), 2024.

Above table 4.6 is the summary of the panel data regression results of the model used by the study. The Hausman specification test result reveals a Chi2 of 40.14 and the p-value of chi2 0.0000 which is significant at 1% level of acceptance therefore, the null hypothesis of hausman specification test stated that if null hypothesis is accepted random will be preferred and if the null hypothesis is rejected the fixed effect will be preferred. From the result in the above regression table the null hypothesis is rejected because the p-value of hausman specification test is at (0.0000), meaning that it is significant at 1% level of acceptance as such existence of heteroschedasticity problem that requires to be checked. However, Gujurati (2004) stated that when fixed-effect model is favoured in the presence of Heteroskedasticity, Panel Corrected Standard Error (PSCE) Regression should be run to check the problem of heteroschedasticity. Therefore, this study

conducted the PCSE regression and hypotheses were tested based on the PCSE regression results. The R^2 is the multiple coefficients that give the proportion of complete variation in the dependent variable, which is simultaneously explained by the independent variable. From the PSCE result, the coefficient of R^2 is 0.2483 implies that 24.83% of the complete variation of ROA of listed consumer goods companies in Nigeria is explained by tdta, tdte, liquidity decision, firm size and firm age while the remaining 75.17 is explain by other factors not captured in this model. However, the result shows the value of the wald chi2 of 67.31 with F-stat. of 0.0000 which is significant at 1%. This implies that the model fitted the study variables. It further signifies that the selected variables are among the capital structure variable that influenced the financial performance of listed consumer goods companies in Nigeria.

4.6 Discussion of Findings

The first objective of this study is to examine the effect of equity ratio on the financial performance of consumer goods companies in Nigeria. From the study findings using pcse regression result total debt to total equity had a negative coefficient of -0.09998 with a negative Z-statistics of -1.88 and p-value of 0.060, which is statistically not significant at 5% level of acceptance. This mean that an increase in consumer goods companies' equity by -0.09998 and financial performance of this companies will decrease by -1.88 Therefore, the null hypothesis postulated which stated that the equity ratio has no significant effect on consumer goods companies in Nigeria is hereby accepted. The finding is in line with the study finding of Ekwueme and Ogbogbo (2018), (Afroze & Khan, 22); Mutua and Atheru (2020), Zang, Lin, Chen and Zhaoh (2022) which indicated that equity ratio has negative insignificant effect on firm performance.

The second objective of this study is to examine the effect of debt ratio on the financial performance of listed consumer goods companies in Nigeria. The study findings using pcse regression result revealed that total debt to total asset had a positive coefficient of 0.40892 with a positive Z-value of 1.25 and p-value of 0.212, which is statistically not significant at the level of acceptance. This mean that an increase in debt ratio of the companies under study by 0.41% will lead to insignificantly increase in companies' financial performance by 1.25. Therefore, the null hypothesis postulated which stated that the debt ratio has no significant effect on consumer goods

companies in Nigeria is hereby accepted. The finding is in line with the study finding of Sebastain and Onuegbu (2018), Daud, Normani, Mansor and Endut (2016), Ogbonnaya and Chimara (2016) which indicated that debt ratio has no significant effect on firm performance.

The third objective of this study is to determine the moderating effect of liquidity on the relationship between equity ratio and performance of consumer goods companies in Nigeria. The study empirical finding shows positive coefficient of moderator (liquidity) on equity ratio and financial performance of 0.10556, with a Z-statistics of 2.15 and the P-value of 0.031, which is statistically significant at 5% level of acceptance. This implies that a unit increase in liquidity by equity ratio by 0.10556 would bring about a significant increase in the financial performance of the companies 2.15%. It is in line with evidence that keeping optimal liquidity can increase agency costs and, consequently, a high liquidity decision is promising businesses is linked to higher financial performance. The result supports the findings of those who documented significant and positive relationships between liquidity decision and a firm's financial performance Wuave et al. (2020); Effiong and Enya (2020); Salim and Bilal (2016). The fourth objective of this study is to determine the moderating effect of liquidity on the relationship between debt ratio and performance of consumer goods companies in Nigeria. The study empirical finding reveals negative coefficient of moderator (liquidity) on

debt ratio and financial performance of - 0.03437, with a Z-statistics of -2.69 and the P-value of 0.007, which is statistically significant at 1% level of acceptance. This implies that a unit increase in liquidity by debt ratio of - 0.03437 would bring about a significant negative decrease in the financial performance of the companies -2.69%. This implies that a unit increase in liquidity by debt ratio would bring about a decrease in the financial performance of the companies. It is in line with evidence that a highly liquid profitable business opportunities can decrease agency costs and, consequently, high liquidity decision is non-promising businesses is linked to lower financial performance. The result supports the argument of those who documented significant and negative relationships between liquidity decisions and a firm's financial performance Chuwdhury and Zaman (2018); Murithi and Waweru (2017); Mwangi (2014) and Maaka, (2013). Finally, the control variables were used in the study to account for differences among the units of analysis. Firm Size (FS), and Firm Age (FA) are the control variables used. The study's findings reveal a statistically strong positive/negative association between firm size and firm age and financial performance measured by ROA respectively as shown in the above table 4.6.

5. Conclusion and Recommendations

The study provides empirical and statistical evidence on the significance of explanatory variables that constitute capital structure in explaining the performance of listed consumer goods firms in Nigeria moderating role liquidity decision. On one hand, TDTA explanatory

variable found to have positive insignificant influence on the firm's performance. This signifies that diluting firm capital structure with debt financing does not significantly influence the firm financial performance. Equally, the TDTE found to have negative insignificant influence on the firm's performance. On the other hand, TDTALIQ found to have negative but statically significant with firm financial performance. Also, TDTELIQ was found to be positive and statistically significant in influencing financial performance of the listed firms under study. The control variable used Firm size and Firm age were found to have both positive and negative significant influence with the firm financial performance respectively on listed consumer goods firm in Nigeria. However, the moderator has statistically indicated significant influence on TDTA and TDTE on firm performance. As such the study recommended that the companies should give more emphasis on TDTA, TDTE and liquidity decision because they affect their firm's financial performance significantly.

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