

Impact of Capital Structure on Financial Performance of Quoted Consumer Goods Firms in Nigeria

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Abstract

This study evaluated the Impact of Capital Structure on Financial Performance of Quoted Consumer Goods Firms in Nigeria for the period 2011- 2020. The study data, which was collected by secondary means, was analyzed using STATA 13 to test the relationship between the independent variable (capital structure proxied by debt-to-equity ratio, long term debt to total assets ratio and short term debt to total assets ratio) and the dependent variable (financial performance proxied by return on assets and net profit margin). Findings from the study indicate that whilst long-term debt ratio has a negative relationship with net profit margin and return on assets, short-term debt ratio has a positive relationship with net profit margin. This means that while short term debt is beneficial to operations of quoted consumer goods firms in Nigeria, long term debts are not. This conclusion is in line with the static trade-off theory which suggests that there is an optimal debt to equity ratio beyond which debt is no longer beneficial to a firm. The study recommends that consumer goods firms in Nigeria should strive to understand and establish their optimal capital structure to enable them take advantage of both debt and equity at the right mix to support their business operations

Keywords: Capital Structure, Financial Performance, Ratios, Debt, Equity

INTRODUCTION

Capital structure refers to the mix of funding sources for an organization's financing. It is the proportionate relationship between debt and equity financing by a company. Organizations sources of funding can be internal in the form of equity which includes paid up share capital, share premium and reserves or external in the form of debts or both. According to Aziz and Abbas, (2019) in Nelson, Johnny, Peter and Ayunku (2019), it is the debt and equity mixture that organizations use to finance their business operations. Equity capital is typically provided or supplied by owners of the organization and is usually in the form of ordinary shares. Whilst this form of financing is relatively cheap, continued use of it may result to dilution or loss of control by the original owners. Debt financing on the other hand ensures maintenance of control but comes at a cost to the organization. According to Abor (2016) in Mukumbi, Eugene and Jinghong (2020), there is a relationship between the choice of capital structure by a company and its overall market value because this choice determines how the operating cashflows are shared between owners (shareholders) and debt holders. Mukumbi et al (2020) posits that increased leverage by a company increases its value up to a point, beyond which any further increase raises overall cost of capital and decreases its market value. Capital structure can also be viewed as "the choice of a firm's mixture of sources of financing, made up of debt and equity financing" (Addae, Nyarko-Bassi & Hughes, 2013). Therefore, the central theme in capital structure is a decision between debt and equity. Essentially, the debt equity ratio is important in discussions about capital structure.

Discussions about capital structure of companies became well pronounced following the work of Modigliani and Miller known as (M & M) in 1958. According to M & M capital structure has no relevance for a company. That under certain circumstances, the option between equity and debt does not impact an entity's worth hence, the capital structure decision is irrelevant. Some of the circumstances that can make the M & M submission hold according to them are, no taxes, no transaction cost, no bankruptcy cost, perfect contrasting assumptions, and complete and perfect market assumption. According to M&M a company can have wholly debt as an optimal capital structure under certain circumstances. That neither capital structure nor dividend policy have any impact on the market value of a company in a perfect market. However, this theory has been a subject of controversy and several other research because, in the real-world scenarios, their central assumptions never holds as there is no perfect market. Despite the so

much research on the optimal ratio of debt to equity which has led to so many theories like the pecking theory, trade-off theory, agency theory and the like, no agreement has been reached as to the optimal capital structure, (Addae, Nyarko-Bassi & Hughes, 2013). Be that as may, Addae, Nyarko-Bassi & Hughes (2013) posit that a search for the optimal capital structure which is the level at which a firm maximizes profitability and shareholder's value is at the heart of discussions about capital structure.

As a fall out of the irrelevance of capital structure theory propagated by M&M in 1958, there has been several research into the other assumptions like no taxes, and the other imperfect market issues they enumerated and whether the choice of capital structure has any effect on a company's market value. This has shown that capital structure decisions are important since there is no perfect market. The extent to which this decision affects a company's market value is still a subject of debate. This paper investigated if capital structure has any impact on the Financial performance of quoted consumer goods firms in Nigeria by examining information for the period 2011 to 2020. Specifically, this study seeks to find out how quoted consumer goods firms in Nigeria use their capital structure decisions to create shareholders' wealth or value in terms of profitability. This will be examined by the hypothesis below:

H₀₁: Short-term debt to total assets ratio does not have any significant impact on the financial performance of quoted consumer goods firms in Nigeria

H₀₂: Long-term debt to total assets ratio does not have any significant impact on the financial performance of quoted consumer goods firms in Nigeria

H₀₃: Total debt to equity ratio does not have any significant impact on the financial performance of quoted consumer goods firms in Nigeria

LITERATURE REVIEW

Conceptual Framework

Capital structure

Capital structure has been defined by different authors and writers. But in summary all the definitions point to the fact that it is a proportionate mix of equity and debt to finance a company's operations. According to Subramanian (2009) in Aljamaan (2018), capital structure is a long-term financing of a company's operations as represented primarily by long term debts and equity and that one of the crucial decisions of management is to decide on a more suitable capital structure because it has a close relationship with the value of a company. Gitman and Zutter (2012) in Aljamaan (2018) posit that capital structure is a "mix of long-term debt and equity maintained by a firm." Capital structure refers to the combination of different financing sources for starting and running a business, Rafiu, Quadril, Ajani & Ofe, (2018).

Capital structure of a company determines the ownership structure of the company. That is, it shows how much of the company's sources or funding is provided by the owners who have last claim in the event of liquidation versus how much of it is provided or covered by debts or creditors who have first claim in the event of liquidation. There are different rewards and incentives to the two major components of the capital structure. Whereas equity shareholders exert control over the company, their earning is not fixed and secured, they are only paid where a company makes profit and declares dividend. All other funds providers have to be paid first before equity shareholders. Debt holders on the other hand have fixed earnings in form of interest whether the company makes profit or not as stipulated by the contract. They do not share in the risk of the business and are settled first in the event of liquidation. Therefore, the question of finding a balance or an optimal capital structure for a company is an important one for management. When a company is financed entirely by equity, all its resultant profit or cash flows goes to the equity shareholders. When its financing is a mixture of debt and equity, its profits or cash flows are shared between equity stockholders and the debt holders, with the debt holders getting a fixed amount, while the equity stockholders get the residual amount depending on the overall performance of the business. Measures of capital structure included debt to equity ratio (DER), long term debt to total asset ratio (LT/TA) and short-term debt to total assets (ST/TA). Debt to equity ratio (DER) measures how much debt and how much

equity a firm uses to finance its operations. DER shows a firm's debt as a percentage of its shareholder's equity. A ratio of 1:1 shows a firm is financed equally by debt and equity. A ratio of more than 1 indicates a firm is highlighted indebted and can be considered risky. Long term debt to total asset ratio (LT/TA) measures how much of a firm's assets is financed by long term debt. This gives an indication of how much of a firm's assets need to be sold off to pay off its debt in the event of bankruptcy. A firm with high LT/TA ratio is said to be highly geared. Short term debt to total assets ratio (ST/TA) on the other hand measures the percentage of a firm's assets that is finance by short term finance.

Financial Performance

Financial performance measures the extent to which a firm is capable of making profit within a time period from deployment of its resources like human resources, assets and capital. Financial performance describes how best a company puts resources at its disposal to use in generating revenue. Using financial performance measures such as profitability and liquidity, company stakeholders can evaluate a company's financial health over time as well as its current position. Financial performance measurement provides a means by which the result of a company can be measured in terms of monetary value. It is a good gauge to measure the success of a company and to compare it with others or with its past performance. Indicators such as profit margin (gross profit and net profit), return on assets, return on equity and the like are used to measure financial performance. Profit margin measures the percentage of sales that is left after all expenses are paid for, (Sultan & Adam 2015). According to Bodie, Zvi, Merton, and Cleeton (2009) in Sultan and Adam (2015), external users of financial statement information use profit margin to determine how a firm converts sales to net income. External parties have different uses for the profit margin information: Investors use it to see if a company has generated enough profits to declare dividends, creditors use it to see if the company has made enough profits to pay back its debts Gubson (2013) in Sultan & Adam (2015). Return on Assets (ROA) on the other hand shows how well a company is using its assets to generate earnings, (Sultan & Adam 2015). Return on Equity (ROE) measures how efficiently management is using shareholders' investment to generate wealth. The higher this ratio, the more profitable a company is. ROE also measures the managerial efficiency of a company (Sultan & Adam 2015).

Ratio Analysis

The analysis of financial statements information with a view to obtaining quick indicators of the financial performance of a firm is termed ratio analysis, Lambe (2021). Ratio analysis is a tool used to compare line items in a financial statement against one another. Information derived from ratio analysis is used for various purposes. Ratios are generally group into two depending on how they are constructed or their general characteristics. By construction there are four groups of ratios: coverage ratio which measure ability to meet certain obligations, returns ratio which assesses net benefits compared to resources expended, turnover ratio which assesses gross benefits compared to resources expended and component percentage which compares one item to another for various purposes. The operating and financial condition of a company can be assessed using financial ratios. Ratios such as liquidity, profitability, active ratio, financial leverage ratio, shareholder ratio, return on investment, return on assets, return on equity and the like are used in assessing a company's financial and operating health.

Empirical Framework

Several studies have been carried out to establish the relationship between capital structure and financial performance of companies. Below is a summary look at some of the works and their findings. Habimana (2014) examined the relationship between capital structure and financial performance with focus on firms in emerging markets. Data from this research was obtained from firms in Africa, Middle East, Asia, Eastern Europe, Russia, and China. Finding from this study which employed ordinary least squares technique for data analysis show that capital structure has an impact on financial performance of firms. It established that leverage has a negative significance in relation to returns and positive relationship to systemic risk. The findings of this study support the static trade-off theory of capital structure which says

there is an optimal level of debt to equity ratio beyond which the marginal benefit of financial capital with debt is not beneficial. Sultan and Adam (2015) studied the effect of capital structure on profitability of firms listed on the Iraq stock exchange. Their study covered the period 2004-2013 for a population size of four companies. They obtained secondary data from audited financial statements of the companies sampled and analyzed the data using multiple regression model represented by ordinary least square (OLS). The study found that capital structure positively influences in a significant way the profitability of listed firms on the Iraq stock exchange. Another finding of this study shows that profitability and assets (firm size) are negatively influenced by capital structure of those firms. In their study of capital structure and the performance of quoted insurance industry in Nigeria,

Rafiu, Quadril, Ajani and Ofe(2018) posited that there is a significant negative effect by capital structure on the performance of insurance companies in Nigeria. Their study which sourced data from 29 insurance companies in Nigeria between 2006 and 2014 examined the pattern of debt and equity on the financial performance of these companies. Using graphs, percentages, trend analysis and random effect model based on the outcome of LM-test and Hausman test for their data analysis, they concluded in agreement with the pecking order and static trade-off theories of capital structure. They noticed that higher debt in relation to equity led to lower financial performance of the insurance companies. They therefore recommend that insurance companies increase their retained earnings so as not to depend much on debt as a source of finance. Mukumbi, Eugene and Jinghong (2020) on the other hand concluded that debt financing increases positively the financial performance of firms operating on the Nairobi Securities Exchanges(NSE). They therefore recommended that firms should increase debt financing compared to equity. In their study, Mukumbi et al (2020) made use of secondary data sourced from company websites and the NSE handbook for 16 non-financial firms the period 2013-2017. Financial performance was proxied by return of assets and return on equity ratios while capital structure was proxied by change in debt and debt to equity ratios. They analyzed their data using correlation and regression analysis using STATA version 15 as an aid. Another study by Taqi, Ajmal and Pervez (2016) of trading companies in India found that capital structure influences financial performance of firms and that equity and long-term debts have a positive and significant effect while short term debt has a negative impact on financial performance. This study was explanatory and non-experimental in nature and covered a ten-year period between 2006 and 2015 and had as sample eight trading companies listed on the Bombay stock exchange (BSE). Data collected was analyzed using E-views and multiple regressions.

Theoretical Framework

Trade-off Theory

This theory suggests that to maximize the value of a firm, there is a target leverage level at which this can be achieved, (Abdeljawad, Mat-Nor, Ibrahim & Abdul-Rahim, 2013). That any deviation from this target must be adjusted for or to choose between the two modes of company financing: debt or equity, companies do or must do a cost benefit analysis to arrive at the option that best suits its situation. In choosing debt financing a company is to compare the benefits derived from this choice to the cost of bankruptcy and financial distress. If the tax relief from debt financing offsets the cost of bankruptcy and financial distress, the company should use debt financing (Xhaferi & Xhaferi; 2015). Deciding on an optimal capital structure is still a challenge because there is no agreement as to what constitute the benefits and costs (Abeywardhana 2017). According to Myers (1977) in Abeywardhana (2017), using debts up to a certain level offsets the cost of financial distress and interest shield from tax. Also, Fama and French (2002) in Abeywardhana (2017) opine that “optimal capital structure can be identified through the benefits of debt tax deductibility of interest and cost of bankruptcy and agency cost.” The Miller model also suggests that the optimal debt assets ratio is that point where marginal tax benefit and marginal bankruptcy costs equals (Abeywardhana, 2017). The tradeoff theory has two models, the static tradeoff theory which according to Ghazouani (2013), is that optimal capital structure that maximizes the value of a firm by balancing the cost and benefits of an additional unit of debt. And the dynamic trade off theory which according to Abdeljawad (2013) is the adjusting behavior of the firm towards the target or optimal leverage level. This study is underpinned by

the static trade off theory of capital structure which suggest that there is an optimal debt to equity ratio beyond which debt is no longer beneficial to a firm. **Pecking Order Theory**

According to this theory, companies have a hierarchy of financing, preferring first internal financing, then debt, then equity due to asymmetrical and signaling problems. That companies prefer financing following an order from safer to riskier therefore preferring internal financing compared to external financing (Xhaferi & Xhaferi, 2015). According to Myers and Majluf (1984) investors outside a company would usually discount a company's stock price when a company issues equity instead of taking riskless debts. This is the reason why company managers would as much as possible avoid equity offers and that managers would normally follow the pecking order going first for internal funds, followed by less risky debts then equity. Going by the pecking order theory, Harris and Raviv (1991) suggest that decisions about capital structure are intended to do away with the inefficiencies caused by information asymmetry. Information asymmetry and separation of ownership according to Myers (2001) in Abeywardhana (2017) is a reason why companies avoid the capital market. Also, Frydenberg (2004) in Abeywardhana (2017) explains that debt issue by a company provides a signal to the market that the firm is confident and outstanding and that its management is not afraid of debt financing.

Market Timing Theory

This theory suggests that managers time when to issue equity shares in the market. Managers issue shares when they perceive that their share price is overrated and buy them back when they perceive their share prices are underrated Baker and Wurgler (2002) in Abeywardhana (2017). These fluctuations in shares prices affect financing decisions of companies and ultimately their capital structure. Aljamaan (2018) see the practice of issuing shares at high prices and repurchasing them at low prices by companies as a temporary exploitation of the fluctuations in the cost of equity compared to other forms of financing. According to a study by Al-tally (2004), see Aljamaan (2018), low leverage firms take advantage of when their market valuation is high to raise funds while high leveraged firms do the same when their market valuation is low.

METHODOLOGY

This research employed the descriptive survey design methodology. The study population consisted of 10 consumer goods firms listed on the Nigeria Stock Exchange. Secondary data sourced from 2011 to 2020 audited financial statements of the target population as obtained from the website of the Nigerian stock Exchange was used. Data collected was analyzed using STATA 13 to test the relationship between the independent variable (capital structure proxied by long-term debt to total asset ratio, short-term debt to total assets ratio, and debt to equity ratio) and the dependent variable (financial performance proxied by return on assets ratio and net profit margin). The variables that will be used in the analysis are as follows:
Dependent variables:

Return on Assets (ROA) = (Profit After interest and Tax ÷ Total Assets) x 100

Net Profit Margin (NPM) = (Profit After interest and Tax ÷ Total turnover) x 100

Independent variables:

Debt to Equity ratio = Total Liabilities ÷ Stakeholders' equity

Short-term debt ratio = Short term debt ÷ Total Assets

Long term debt ratio = Long Term debt ÷ Total Assets

Since different capital structure and financial performance proxies were used, the panel data regression analysis model: $Y_{it} = \beta_0 + \beta F_{it} + e_{it}$ is therefore modified to determine the relationship between firms capital structure and their financial performance. From the model specified above,

Y_{it} = dependent variable (firm profitability measure) β_0 = constant

β = is the coefficient of the explanatory variable (capital structure variables) F_{it}
= explanatory variable in the estimation model
 e_{it} = error term (assumed to have zero mean and independent across time period)

It also builds on the model of Taqi, Ajmal and Pervez (2016) which specifies the model given below: $P = a + \beta_1 DER + \beta_2 DTFAR + e$ Where:

P = firm financial performance
 DER = Debt to Equity Ratio
 $DTFAR$ = Debt to Fixed Assets Ratio

RESULT AND DISCUSSION

Table 1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Return on Asset (ROA)	100	4.3897	11.1051	-3.01	42.85
Net Profit Margin (NPM)	100	0.296	0.1691	-1.75	0.25
Debt to Equity ratio (DER)	100	0.8879	1.2852	-1.1	7.4
Long-term Debt ratio(LT/TA)	100	0.1672	1.5972	-0.24	0.83
Short-term Debt ratio(ST/TA)	100	0.1593	0.3793	0.13	2.57

Source:Stata 13 Output Results based on study data

Table1 presents the descriptive statistics for the dependent and independent variables; Return on Asset (ROA), Net Profit Margin, Debt to Equity ratio (DER), long-term debt ratio (LT/TA) and short-term debt ratio (ST/TA). The standard deviation of the variables ranges from 0.1691 to 11.1052. Net profit margin has the lowest standard deviation of 0.1691 followed by short term debt ratio, debt to equity ratio, long term debt ratio, and return on asset with a standard deviation at 0.3793, 1.2852, 1.5972, and 11.1051 respectively. The relatively low standard deviation for all the study variables indicates that the residuals of sampled data for the study are normally distributed. The table also shows an average value of 4.3897 for return on asset. The minimum and maximum values of return on asset during the study period are 3.01 and 42.85 respectively. These values implied that all the sampled companies actually have values for return on asset during the study period. The table further revealed an average value of 0.296 for net profit margin. The minimum and maximum values of net profit margin is -1.75 and 0.25 respectively. Debt equity ratio has a mean value of 0.8879 and a minimum and maximum value of -1.1 and 7.4. Long term and short-term debt ratios all have a mean value of 0.1672, and 0.1593 and a minimum and maximum value of -0.24, 0.13, -1 and 0.83, 2.57 and 36.7 respectively.

Table 2 Correlation Analysis

Variable	ROA	NPM	DER	LT/TA	ST/TA
Return on Asset (ROA)	1.0000				
Net Profit Margin (NPM)	-0.0452	1.0000			
Debt to Equity (DER)	0.0211	0.2666	1.0000		
Long term debt ratio	0.2182	0.0091	0.2966	1.0000	
Short term debt ratio	-0.4404	0.0602	-0.0124	-0.0259	1.0000

Source:Stata 13 Output Results based on study data

Table 2 displays the results of the correlation analysis. From the table, it is observed that there is no relationship among the dependent and independent variables that is large enough (greater than 0.7) to pose the problem of singularity of data. The extent of relationship among all the independent variables is

therefore minimal and negligible. The table reveals a weak positive correlation of 0.0211, and 0.2182 between debt to equity ratio, long term debt and return on asset respectively for the companies during the period under study. The positive correlation coefficient is an indication that debt to equity ratio and long term debt is associated with increase in return on asset of the sampled companies. Similarly, net profit margin is positively associated with all the independent variable except total debt ratio. The Variance Inflation Factor (VIF) was conducted to ascertain the existence or otherwise of multicollinearity between and among the independent variables. The results of the VIF test are shown in table 3 below: Table 3 Results of VIF Test

Variable	VIF	Tolerance (1/VIF)
Debt to Equity (DER)	1.10	0.9115
Long term debt ratio	1.10	0.9120
Short term debt ratio	1.00	0.9993
Mean VIF	1.06	

Source: STATA 13 output Results based on study data

Table 3 shows that in each case, VIF is less than 10 and tolerance level is less than 1 respectively, showing that there was absence of perfect multicollinearity among the independent variables. The mean VIF of 1.06 also attests to this fact.

Table 4 Breusch- Pagan/ Cook- Weisberg test for Heteroskedasticity

Model One		Model Two			
Variable	Chi ²	Prob.> chi ²	Variable	Chi ²	Prob.>
Return on asset (ROA)	27.12	0.0000	Net Profit Margin (NPM)	12.25	0.0005

Source: STATA 13 output Results based on study data

A pooled OLS regression was conducted based on the data set. After the OLS regression result. Heteroskedasticity test was conducted using Breusch–Pagan/Cook- Weisberg test of Heteroskedasticity to check if the variability of error terms is constant. The presence of Heteroskedasticity indicates that the variation of the residuals or error terms may not be constant and could affect inferences made from beta coefficients, coefficient of determination (R²) and F-statistics of the study model. The result of the test as shown in table 4 above shows that the presence of Heteroskedasticity as the probability chisquare value of 0.0000 and 0.0005 for return on asset and Net profit margin in models one and two respectively is less than 0.05. This was corrected by running a robust random effect regression since the Hausman test indicated that random effect regression is most appropriate.

Table 5 Fixed effect, Random effect regression, Hausman test and Lagrangian multiplier test.

	Model One (ROA)		Model Two (NPM)	
	Chi-bar ²	Prob.> chi ²	Chi-bar ²	Prob.> chi ²
Fixed effect	7.94	0.0001	3.50	0.0188
Random effect	26.22	0.0000	6.93	0.0742
Hausman test	4.19	0.2416	2.81	0.4221
LM test	14.35	0.0001	27.77	0.0000

Source: STATA 13 output Results based on study data

Due to the panel nature of the data set, both fixed effect and random effect regressions were run. Hausman specification test was then conducted to choose the preferred model between the fixed effect and random

effect regression models. The result of the test showed a chi square value of 4.19 and 2.81 with probability value of 0.2416 and 0.4221 for model one and two respectively indicating that random effect regression model is most appropriate for the sampled data. However, The Breusch and Pagan Lagrangian multiplier test for random effect was also conducted to determine between the pooled OLS and random effect regression which is most appropriate. The results in table 5 above showed a chi square of 14.35 and 27.77 with a corresponding probability of 0.0001 and 0.0000 for model one and two respectively, therefore the study rejected the null hypothesis and accepted the alternative hypothesis that random effect regression is the most appropriate model. As a result, random effect regression should be used. The post diagnostic analysis showed that there is a problem of Heteroskedasticity consequently, the random effect regression results presented in Table 6 were conducted using robust standard error.

Table 6 Random effect Regression Results

ROA	(Model One)				(Model Two)				
	Coef.	Robust Std. Err.	zvalue	P-value	NPM	Coef.	Robust Std. Err.	zvalue	P-value
-Cons	13.3301	3.8818	3.43	0.001		0.0050	0.0332	0.15	0.881
Long term debt Ratio	-15.4820	3.1141	-4.97	0.000		-0.1865	0.1674	-1.11	0.265
Short term debt Ratio	-11.3931	4.7032	-2.42	0.015		0.0747	0.0224	3.34	0.001
Debt to Equity (DER)	-0.4903	0.5416	-0.91	0.365		0.0191	0.0154	1.24	0.216
R2				0.2315					
Prob > chi2				0.0000					0.0000
F- statistics				25.64					31.25

Source: STATA 13 Output Results based on study data

Discussion of findings Model One

Table 6 above shows the results of the analysis for models one and two. The results are interpreted in the following paragraph.

The F-statistics value of 25.64 and a corresponding Prob.>F of 0.0000 indicated that the model is fit to explain the relationship expressed in the study and further suggests that the explanatory variables are properly selected, combined, and used. The nature and extent of relationship between the dependent variable and each of the independent variables of the study in terms of coefficients, z-values and p-values are explained further below:

The regression result for the sampled companies as presented in table 6 above shows that there is a negative relationship between return on asset (ROA) and long-term debt ratio as explained by a coefficient value of -15.4820 with a corresponding P value of 0.000. This revealed that a one unit increase in long term debt ratio leads to -15.4820 unit decrease in return on asset. The p-value of 0.001 is less than 0.05, therefore the study rejects the null hypothesis and accept the alternative hypothesis that capital structure (proxy by long term debt ratio) has significant impact on financial performance (proxy by return on asset).

Similarly, the results revealed that there is a negative relationship between short term debt ratio (ST/TA) and return on asset of the companies during the study period. This is explained by a coefficient value of 11.3931 with a corresponding P-value of 0.015. This showed that a unit increase in short term debt ratio (ST/TA), lead to 11.3931 unit decrease in return on asset. The p-value of 0.000 is less than 0.05, therefore the study rejects the null hypothesis and accept the alternative hypothesis that capital structure (proxy by

short term debt ratio) has significant impact on financial performance (proxy by return on asset). Finally, the results revealed that debt to equity ratio has a negative relationship with return on asset. This is explained by a coefficient of -15.4280 with a corresponding p-value of 0.365. This means that a unit increase in debt to equity ratio (DER), leads to 0.4903 unit decrease in return on asset. The P value of 0.365 is greater than 0.05, therefore the study rejects the alternative hypothesis and accept the null hypothesis that capital structure (proxy by debt to equity ratio) has no significant impact on financial performance (proxy by return on asset).

Discussion of findings Model Two

The F-statistics value of 31.25 and a corresponding Prob.>F of 0.0000 indicated that the model is fit to explain the relationship expressed in the study. The nature and extent of relationship between the dependent variable and each of the independent variables of the study in terms of coefficients, z- values and p- values are explained further below:

The regression result for the sampled companies as presented in table 6 above showed that there is a negative relationship between net profit margin (NPM) and long-term debt ratio as explained by a coefficient value of -0.1865. This reveals that a unit increase in long term debt ratio leads to 0.1865 unit decrease in net profit margin. The p-value of 0.881 is greater than 0.05, therefore the study rejects the alternative hypothesis and accept the null hypothesis that capital structure (proxy by long term debt ratio) has no significant impact on financial performance (proxy by net profit margin).

Similarly, the results reveal that there is a positive relationship between short term debt ratio and net profit margin of the companies during the study period. This is explained by a coefficient value of 0.0747 with a corresponding P-value of 0.001. This showed that a unit increase in short term debt ratio, lead to 0.0747 unit increase in net profit margin. The p-value of 0.001 is less than 0.05, therefore the study rejects the null hypothesis and accept the alternative hypothesis that capital structure (proxy by short term debt ratio) has significant impact on financial performance (proxy by net profit margin). Finally, results reveal that debt to equity ratio has a positive relationship with net profit margin as shown by a coefficient of 0.0191 . This means that a unit increase in debt to equity ratio (DER), leads to 0.0191 unit increase in net profit margin. The P value of 0.216 is greater than 0.05, therefore the study rejects the alternative hypothesis and accept the null hypothesis that capital structure (proxy by debt to equity ratio) has no significant impact on financial performance (proxy by net profit margin)

CONCLUSION AND RECOMMENDATIONS

Based on findings of this study, components of the capital structure have varying degree of effect on financial performance. The results reveal that there is a negative relationship between both short term and long-term debt ratios and return on asset of the firms during the study period, i.e.a unit increase in both short and long term debt ratio led to decrease in return on assets, and a negative relationship between long term debt ratio and net profit margin. However, there is a positive relationship between net profit margin and both short term debt ratio and debt to equity ratio. Meaning a unit rise in short term debt ratio and debt to equity ratio led to an increase in net profit margin. In summary therefore, it has been found that long-term debt ratio has a negative relationship with net profit margin and return on assets while shortterm debt ratio has a positive relationship with net profit margin. This conclusion is in line with the static trade-off theory which suggest that there is an optimal debt to equity ratio beyond which debt is no longer beneficial to a firm. This assertion is supported by Ghazouani (2013), who in explaining the static tradeoff theory opined that there is an optimal capital structure that maximizes the value of a firm by balancing the cost and benefits of an additional unit of debt.

In view of these findings, it is recommended that consumer goods firms in Nigeria should strive to understand and establish their optimal capital structure to enable them take advantage of both debt and equity at the right mix to support their business operations

References

- Abdeljawad, I., Mat-Nor, F., Ibrahim, I. & Abdul-Rahim, R. (2013), Dynamic Capital Structure Trade-off Theory: Evidence from Malaysia, *International Journal of Business research Papers*, 9(6), 102-110
- Abeywardhana, D.K.Y. (2017), Capital Structure Theory: An Overview, *Accounting and Finance Research*, 6(1), 133-138
- Addae, A.A., Nyarko-Bassi, M. & Hughes, D. (2013), The Effects of Capital Structure on Profitability of Listed Firms in Ghana, *European Journal of Business and Management*, 5(31), 215-239
- Adeyemi, A. Z., Unachukwu, J. C. & Oyeniyi, K. O. (2017), Capital Structure and its Effect on the Financial Performance of Nigerian Insurance Industry, *International Journal of Business & Law Research*, 593, 8-15
- Ahmeti, F. & Prenaj, B. (2015), A Critical Review of Modigliani And Miller's Theorem of Capital Structure, *International Journal of Economics, Commerce and management United Kingdom*, 3(6), 914-924
- Aljamaan, A. E. (2018), Capital Structure: Definitions, Determinants, Theories and Link with Performance Literature Review, *European Journal of Accounting, Auditing and Finance Research*, 6(2), 49-72
- Gansuwan, P. & Onel, Y. (2012), The Influence of Capital Structure on Firm Performance a Quantitative study of Swedish listed firms. *Unpublished Masters thesis: Umea University, Sweden.*
- Ghazouani, T. (2013), The Capital Structure through the Trade-Off Theory: Evidence from Tunisian Firm, *International Journal of Economics and Financial Issues*, 3(3), 625-636
- Habimana, O. (2014), Capital Structure and Financial Performance: Evidence from Firms Operating in Emerging Markets, *International Journal of Academic Research in Economics and Management Science*, 3(6), 159-166
- Harris, M. & Raviv, A., (1999), The theory of capital structure, *Journal of Finance*, 46, 297-356.
- Karim, A., Alaji, J. & Innocent, I. O. (2019), Effect of Capital Structure on the Profitability of Listed Insurance Firms in Nigeria, *American International Journal of Economics and Finance Research*, 1(2), 36-45
- Lambe, I. (2021), *Essentials of Financial Management*, Karu-Nassarawa: Kajolam Fruitful Ventures
- Matsoso, M. L. & Benedict, O. H. (2016), Financial performance measures of Small Medium Enterprises in the 21st Century, *Economics*, 7(2,3), 144-160.
- Mauwa, J., Namusongeand, G. S. & Onyango, S. (2016), Effect of Capital Structure on Financial performance of Firms Listed on the Rwanda Stock Exchange, *European Journal of Business, Economics and Accountancy*, 4(4), 1-11
- Modigliani, F. & Miller, M. H. (1958), The cost of Capital, Corporation Finance and The Theory of Investment, *American Economic Review*, 43(3), 261-297
- Mostafa, H. T. & Boregowda, S. (2014), A Brief Review of capital Structure Theories, *Research Journal of Recent Sciences*, 3(10), 113-118
- Mukumbi, M. C., Eugene, K. W. & Jinghong, S. (2020), Effect of Capital Structure on the Financial Performance of Non-Financial Firms quoted on the Nairobi Securities Exchanges, *International Journal of Science and Business*, 4(4) 165-179
- Myers, S.C. & Majluf, N.S. (1984) Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financing Economics* 13, 187-221
- Naser, N. (2016). The impact of firm characteristics on the capital structure of the insurance industry, Jadara University. *European Journal of Accounting, Auditing and Finance Research* 4(6): 61-69.
- Nelson, Johnny, Peter & Ayunku E. (2019), An Empirical Analysis of Effect of Capital Structure on Firm Performance: Evidence from Microfinance Banks in Nigeria, *European Journal of Accounting, Auditing and Finance Research*, 7(9), 30-44
- Niu, X. (2008), Theoretical and Practical Review of Capital Structure and its Determinants *International Journal of Business and management*, 3(3), 133-39.

- Oladele, S.A., Omotosho, O. & Adeniyi, S. D. (2017), Effect of Capital Structure on the Performance of Nigeria Listed Manufacturing Firms, *European Journal of Business management*, 9(7) , 22-32
- Rafiu, O. S., Quadril, A. L., Ajani, B. A. &Ofe, I. I. (2018), Capital Structure and the performance of Quoted Insurance Industry in Nigeria, *Go-Uni Journal of management and Social Sciences*, 6(1), 5775
- Taqi, M., Ajmal, M. & Pervez, A. (2016), Impact of capital structure on the Profitability of Selected Trading Companies of India, *Arabian Journal of Business and management Review (Oman Chapter)*, 6(3) , 1-16
- Xhaferi, S. &Xhaferi, B. (2015), Alternative Theories of capital Structure, *European Scientific Journal*, 11(7), 327-343
- Zeitun, R. & Tian, G. G. (2007), Capital Structure and Corporate: Evidence from Jordan, *The Australian Accounting Business & Finance Journal*, 1(4) , 40-61