Effect of Debt Financing on the Corporate Performance: A Study of Listed Consumer Goods firms in Nigeria

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Abstract: *The concept of debt financing has assumed considerable importance in recent years given the fundamental role debts now play in forming the financial structure of corporate firms. Quite evident in the debt finance literature is the juxtaposition between debt financing and corporate performance which suggests that debt financing can influence corporate performance. Against the narrow measures of debt financing which are common with most studies that have been carried out on the debt finance-performance dynamics; we attempted a more robust combination of debt finance choices in modelling for corporate performance. Based on data gleaned from the audited annual reports of fifteen (15) consumer goods firms listed in the Nigerian Stock Exchange (NSE) for the period 2006 to 2017, results of the panel regression technique revealed that total debt, long-term debt and short-term debt to asset ratios positively influence the performance of consumer goods firms in Nigeria. Based on the findings of the study, we recommend, among others, that there is need for the Nigerian firms to rely less on short-term debts, which forms the major part of their leverage, and focus more on developing internal strategies that can help improve their performance.*

Keywords: Short term debts, Long term debts, Total Debts, Corporate Performance, Consumer goods.

1. INTRODUCTION

Corporate financing has somewhat become topical and attracted a great deal of public interest as a result of its significance regarding investment decisions and economic wellbeing of firms. Indeed, the topicality of the concept has manifested in various studies, both in the developed and emerging economies. Though in exhaustive, these studies have mainly emphasized the choice of debt against equity structure, otherwise referred to as firm's capital structure, with a single leverage variant the dominant variable. The idea of debt as a non-heterogeneous source of funds is a strong theoretical construct, but studies that transcend leverage decision and explore other dimensions of the debt choice are necessary. This is because the nature of debt finance and its incentive features can change with its maturity (short or long) and fund providers (capital markets or banks).

Therefore, it is essential that a study of debts structure involves an examination of the individual effects of all debt variants such as short-term debt, long-term debt and total debt due to their different risk and return profiles (Zuraidah et al., 2012). Moreover, using different components as measure of debt structure as against narrow measure will normally reveal occurrence of mismatch of funding by firms (Chen, 2004; Khan, 2012; Zeitun & Tian, 2007), which can hardly be revealed by a constricted study of debt structure. Lucey and Zhang (2011) highlighted long and short term debt ratios as good measure of leverage ratios in developing countries because of the fund mismatch caused by limited long term debt. The financial system in emerging economies, including Nigeria, is punctuated with poor debt markets. The external debt finance of most firms is mainly short term finance and greater reliance are placed on banks or other financial institutions for most of the external funds, thereby imposing extra burdens on the firms in the shape of exorbitant cost. This may account for the reasons why some scholars adopt different measures of debt ratio as against narrow measure of debt financial structure (For example, Chen, 2004; Khan, 2012; Ong Tze-Sam & Heng, 2011; Zeitun & Tian, 2007). Mismatching funds is when long term investments are financed by short term debts rather than long term debts.

Literature has shown that debt structure decisions are among the most important finance decisions firms encounter. The debate still remains until the present day whether such decisions influence costs of capital and firm values. According to Harelimana (2015), debt financing decision refers to the financial framework of debt levels maintained by an entity. It is vital to managers by reason of the fact that it constitutes the basis for making financing decisions in any firm. Basically, the choice of debt structure a firm adopts is both financial and marketing problem and it depends on the risk and return characteristics of such firm and/or its management (Tudose, 2012). Realistically, it is difficult to determine a firm's debt structure because the exact optimal debt mix can hardly be determined. For this reason, the firm must issue different securities in a countless mixtures to produce the combination that maximizes its overall value (San & Heng, 2011), and increase performance. Optimal debt structure means a combination of funds which

minimizes the weighted average cost of capital (WACC) and increases firm value.

The copious literature on the finance choice between debt and equity dwarfs studies on corporate debt structure/performance dynamics. In other words, while several studies abound on the determinants of financing mix (both debt and equity structure), relatively only a handful of them are on the effects of debt structure on corporate performance, especially in the developing countries. The work of Jensen and Meckling (1976) was one of the early studies on the interaction between capital structure and firm performance. However, over the last decades, a number of other studies have been performed to investigate the relation of financial leverage with firm performance, but empirical evidence regarding this relationship have been found to be contradictory and inconclusive. In this regard, two basic strands of findings exist in extant literature. Studies in the first strand, including those of John and Senbet (1998), Abor (2005), Zeitun and Tian (2007), Onaolapo and Kajolan(2010), and Taiwo and Olayinka, (2012) document positive relationship between debt financing and corporate performance. In the other strand, studies like Zeitun and Tian (2007), Ebaid (2009), Liew (2010), Majumdar and Sen (2010), and Luper and Kwanum (2012) report negative relationship between debt financing and firm performance. Although, some other studies, such as Shoaib (2012) and San and Heng, (2011) discover that most firms lack optimal debt financing structure because managers are not motivated to maximize corporate performance as their compensation are not performance oriented.

Due to these empirical inconsistencies, and given that most studies on the link between firm financial structure and performance are domiciled in the developed countries of Europe, America and Asia, a study based on empirical evidence from an emerging economy like Nigeria becomes warranted. The economies of the countries within these continents are reasonably stable, and so, it will be misleading to assume that results of studies carried out in those countries can be used to draw reliable conclusions on the emerging economies within the African continents because of the peculiarities associated with the different economies. For example, the regulatory framework, general business, legal and audit environment of the developed countries are very much different from those of the developing countries. All these factors could alter the result of a study. This means that country-specific findings will be important in provoking a global discourse of the association between debt financial and corporate performance. This is a gap in literature upon which our study is deeply rooted. In filling this gap, we attempted a robust combination of debt finance choices of short-term debt to asset ratio, long-term debt to asset ratio and total debts to asset ratio in modelling for corporate performance within the Nigerian environment.

The remainder of this paper is organized as follows: Section two provides the literature review on debt structure and firm performance. Section three discusses the theoretical framework for the study. Section four and section five focus on the methodology and analysis of results respectively. Lastly, section six concludes the study with some recommendations.

2. LITERATURE REVIEW

2.1 Concept of Corporate Performance
The term corporate performance refers to the benefits emanating from shares and those from the functioning and operational activities of a firm (Rouf, 2012). The performance a firm can be analysed via its financial statements such as the statements of financial position, comprehensive incomes, cash flow and statement of cash flows. Broadly speaking, the performance of a firm can be analysed via the use of financial ratios which express relationships between variables reported in financial statements of firms (Latridis, 2010). Financial ratios are useful and can meaningfully be used as performance measures when compared with other related meaningful information, either at present or past similar indicator(s) for the same firm or similar firms in the same industry.

According to Akle (2011), accounting-based measurements are generally considered as an effective indicator of a firm's performance. Accounting-based measurement indicates the profitability of firms on the short-term in the past years. Thus, it assists management is measuring the firm's overall efficiency. It is usually used as a measure for earnings generated by a firm during a period of time based on its level of sales, assets, capital employed, net worth and earnings. It is considered an indicator of growth, success and control. Shareholders also are interested in profitability since it indicates the progress and the rate of return on their investments

In the accounting literature, corporate performance can be measured by means of profitability indicators such as earnings per share (EPS), dividend per share (DPS), return on asset (ROA), return on equity (ROE), operating profit (OP), return on capital employed (ROCE), profit margin (PM), return on investment (ROI) or market-based measurement ratios like Tobin's Q, market value added (MVA), market-to-book value (MTBV), annual stock return (RET) among others. In view of the aforementioned, this study shall focus on profitability measure of performance such as the return on asset (ROA).

2.2 Debt Financing and Corporate Performance
Mizra (2013) identified capital structure as one of the internal dynamics that affect firm performance. Capital structure is to the ratio of debt and equity financing. In case of more debt financing, a firm has to face certain bankruptcy risk, but there are also some tax benefits associated with debt

financing (Su & Vo, 2010). A study by Oguna (2014) on the effect of capital structure on the financial performance of firms listed in the Nigerian Stock Exchange established that long-term debt had a significant negative relationship with return on equity, which means the leverage has effect in the long term but not short term. This study focused on the debt component of capital structure via the divide of total debts, long-term debts and short-term debts. Consequently, these debt components of capital structure (i.e. variables of the study) are briefly discussed.

2.2.1 Long-term Debts and Corporate Performance

Long-term debts show the percentage of assets financed with debt which is payable after more than one year. It includes bonds and long-term loans. Generally, these bonds and loans carry a higher interest rate, as lenders demand a higher return in exchange for taking on the greater risk of loaning money over a long period of time. In reality, long-term debt limits managerial discretion by making access to new funds and over-investment less likely (Hart & Moore, 1995). A study by Hernandez-Canovas and Koeter-Kant (2008) suggests that the most significant variables in determining a firm's performance are the long-term debts. Empirical evidences such as Onoja and Ovayioza, (2015), Yan (2013); and Zeitun and Tian (2007) find clear evidence of a positive relationship between long-term debt and firms' performance variants of return on assets (ROA) and return on equity (ROE). On the other hand, Onaolapo & Kajola (2010) found negative relationship between long-term debt and profitability, while Makanga (2015) reported a negative correlation between long-term debt and firm performance proxied by return on assets. Based on the review above, we therefore proposed the following hypothesis:

H_{O1}: *There is no significant relationship between long term debts to asset ratio and corporate performance*

2.2.2 Short-Term Debts and Corporate Performance

In reality, the amount of outstanding short-term debts is an important measure of a firm's financial health. Short-term debt is the best financing tool since it is perceived to be cheaper or less costly for firms (Nwude, Itiri, & Agbadua, 2016). According to Olaniyi, et.al (2015), short-term debt is an account shown in the current liabilities portion of a firm's statement of financial position and it comprises of any debt incurred by a firm that is due within a year period. The debt in a firm's liabilities account is usually made up of short-term bank loans among other types. According to Garcia-Terul & Martinez-Solano (2007), short-term debt is positively correlated with firm's growth opportunities. Moreover, Onoja & Ovayioza (2015) found that short-term debts are superior for limiting managerial discretion and reducing moral hazard on the firm's side. Equally, studies by Onoja & Ovayioza (2015), Yan (2013); Weill (2008); and Zeitun & Tian (2007) found evidence in support of a positive association between short-term debt and firms' profitability

(as measured by return on assets). On the flip side, findings of the study carried out by Makanga (2015) revealed a negative but insignificant relationship between short-term debt and corporate performance (return on assets). Hence, we propose that:

H_{O2}: *There is no significant relationship between short term debts to asset ratio and corporate performance*

.2.2.3 Total Debts and Corporate Performance

Although, Khan (2012) and Amjed (2011) argue that the different types of debts instruments (such as short term debts, long term debt, or both of them) have different rate of returns investors will ask for, different risk element and by implication exert different impact on corporate performance, some researchers including Abor (2007) and Michaelas, Chittenden and Putziouris (1999) caution that determining a single optimal leverage level and trying to establish a relationship between the debt level and corporate performance is likely to result in spurious conclusions. The reason offered by Hutchinson et al., (1998) and Van der Wijst and Thurik, (1993) is that the effects of long and short term debts tend to cancel out if aggregated.

Sheikh and Wang (2011), examined non-financial firms listed on the Karachi Stock Exchange (KSE) in Pakistan and documented a negative relationship between total debt ratio and firm performance. On the other hand, Saeedi and Mahmoodi (2011) investigated the connection between capital structure and firm performance among firms listed on Tehran Stock Exchange and recorded a positive relation between debt ratio and firm performance. In a different study performed by Boroujeni *et al* (2013), both long term and total debt ratios were found to be positively correlated with firm performance. Makanga (2015) found a weak negative correlation between total debts and return on assets (performance). Based on the review above, we propose the following hypothesis:

H_{O3}: *There is no significant relationship between Total debts to asset ratio and corporate performance*

2.2.4 Firm Size and Corporate Performance

It is plausible that other factors may jointly influence debt financing or corporate performance and therefore cause spurious correlation (Richardson, Taylor & Lanis, 2013). For this reason, firm size was included in this study as a control variable. This is essential because firm size accounts for the scale and scope of a firm's operations. Firm size is usually calculated by taking the logarithm of total assets. In this study, firm size is calculated by taking the logarithm of total assets. In the accounting literature, prior studies conducted by Mohammad & Jaafer (2012); and Kebewar (2012) find clear evidence that corporate performance is positively related with firm size. On the basis of the findings of prior

studies, we included firm size in our empirical model as a control variable.

3. THEORETICAL FRAMEWORK

There are several theoretical paradigms which highlight the influence of debt on corporate performance, such as the agency cost theory (ACT), trade-off theory (TOT), signaling and liquidity risk theory (SLRT), pecking order theory (POT) and market timing theory (MTT). However, since studies that have been performed on the link between debt financing and corporate performance, we therefore anchor our work on the agency cost theory.

Agency Cost Theory

Jensen and Meckling (1976) built on the work Miller and Modigliani (1958) by developing agency costs theory. They assume that agency problems arise when shareholders (principals) and managers (agents) have divergent objectives or conflict of interest. That is, managers not accommodating the interests of shareholders. To monitor managers and constrain their excesses, shareholders may incur certain costs, called agency costs (Morri & Beretta, 2008). Agency costs are costs meant to justify whether managers act consistently in line with contractual agreement of firm with the shareholders (Jensen & Mackling, 1976). For an optimal debt level in the capital structure to be achieved, agency costs arising from the different interests of managers, debt holders and shareholders should be minimized (Jensen & Mackling, 1976).

4. METHODOLOGY

4.1 Analytical Framework

As already noted, agency cost arises if there is conflict of interest between shareholders and their agents. Such conflicts are expected when managers have too much cash at their disposal and decide to use the excess cash for boost personal gains at the expense of creating wealth for shareholders and increasing firm's value (Weston & Brigham, 1990). Conversely, managers with restricted "excess cash flow" due to their firms' debt commitments are less able to make such extravagant expenditures (Jensen, 1986). This means that the use of debt capital decreases the agency cost as payment of debts reduces the surplus cash. Therefore, the position of the agency cost theory is that debt capital in the form of short term loans or long term loans or both can reduce the excess cash at the hands of managers, reduce agency costs and consequently, improve corporate performance.

Flowing from the extant literature and theoretical review above, we expect a functional relationship between debt financing and corporate performance as represented in the following schema:
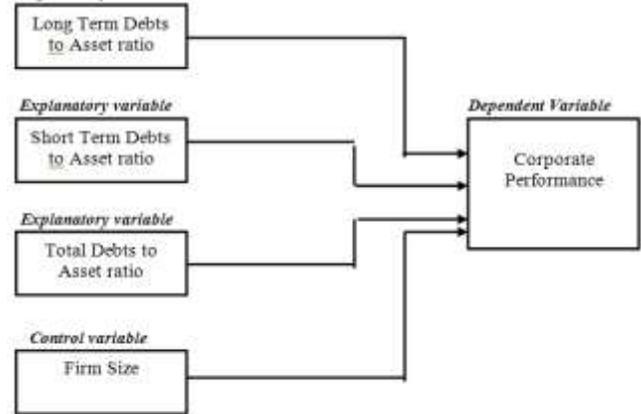
Explanatory variable

Figure 1: Research Analytical Framework, 2018) (Conceptualised by Researchers)

4.2 Model Specification

The model of this study is built on Maina & Ishmail (2014) on the effect of capital structure on financial performance. However, the model for the study is modified not only to incorporate the effect of total debt on corporate performance, but also the effects of long term and short term debts on corporate performance, hence three (3) models were used with each testing the effect of the three scenarios (total, short-term and long-term debts) on corporate performance (return on asset). Each model took into cognizance, size of the firms. On the basis of the above, the relationship between debt financing and corporate performance is thus estimated in the following regression models:

$$Y_{it} = \alpha_0 + \beta_1 TATS_{it} + \beta_2 SIZE_{it} + e_{it} \qquad eq.\ 1.$$

Equation 1 above measures the effect of total debts on return on assets taking into cognizance the size of the firm.

$$Y_{it} = \alpha_0 + \beta_1 LTDS_{it} + \beta_2 SIZE_{it} + e_{it} \qquad eq.\ 2.$$

Equation 2 above measures the effect of long term debt on return on assets taking into cognizance the size of the firm.

$$Y_{it} = \alpha_0 + \beta_1 STDS_{it} + \beta_2 SIZE_{it} + e_{it} \qquad eq.\ 3.$$

Equation 3 above measures the effect of short term debt on return on assets taking into cognizance the size of the firm.

Where:

Y_{it}	=	Return on asset (ROA) for firm i in time t as a measure of performance (Profit after tax/Total assets)
$SIZE_{it}$	=	Log of total assets for firm i in time t
$TATS_{it}$	=	Total debt to asset ratio for firm i in time t (Total debt/Total assets)
$LTDS_{it}$	=	Long-term debt to asset ratio for firm i in time t (Long term debts/Total assets)
$STDS_{it}$	=	Short-term debt to asset ratio for firm i in time t (Short term debts/Total assets)

e_{it}	=	Error term
α	=	Constant term
β^S	=	Coefficients of the explanatory variables

4.3 Research Design, Sampling and Data Estimation Technique

This study employed ex-post facto research design. This research design was adopted because it seeks to analyse secondary data which can hardly be manipulated by the researchers. The population of the study comprises the entire 45 manufacturing firms quoted on the Nigerian Stock Exchange (NSE) as at 31 December, 2017. But, since our population of interest covers only the listed consumer goods firms in Nigeria, the target population becomes the entire 22 consumer goods firms quoted on the Nigerian Stock Exchange (NSE). The consumer goods subsector was chosen over others because it is one of the least investigated sectors of the NSE. To cut costs, a representative sample size of 20 firms derived using the Yamani's (1967) scientific approach to sample determination was adopted.

To ensure that the 20 sample firms are given equal opportunity of being selected, the probabilistic sampling approach was adopted with emphasis on a simple random sampling technique. However, a final sample size of 15 consumer goods firms was selected based on certain criteria: The first criterion was that sample units included in the study hold a complete twelve years financial statement data. Therefore, firms with missing data for a period covering twelve years from 2006 to 2017 were excluded from the study. Secondly, firms that ceased operation at any point during the period of study were excluded. The statistical formula is stated as follows:

$$n = \frac{N}{1 + N(e^2)}$$

Where: n = sample size
N = population size (target)
e = level of significance desired (0.05 on the basis of 95% confidence level)

Data used for analysis in the study were extracted from the published financial statements of the firms covering a period of 12 years from 2006 to 2017. This was supported, where required, with the financial information of the firms as contained in the Nigeria Stock Exchange (NSE) fact book. Both descriptive statistics (such as mean, standard deviation, and minimum, maximum) and inferential statistics (such as the panel regression model) were used to analyse the study data. The data obtained were subjected to regression analysis via STATA 13.0 version. Moreover, to establish the accuracy of the research model, we performed the classical regression assumption test of normality, heteroskedasticity, multi-collinearity and serial correlation. The panel regression technique was employed to enable us investigate the connection between corporate performance (dependent variable) and (explanatory variables) debt financing over 12 years (time series) with a sample of listed firms (cross-section).

5. PRESENTATION AND ANALYSIS OF RESULT

5.1 Descriptive Statistics

Presented in Table 4.1 is the descriptive statistics of the dependent (return on asset: ROA), independent (total debts to assets ratio, long term debts to assets ratio and short term debts to assets ratio) and control (firm size) variables.

Table 4: Descriptive Statistics (Dependent, Independent and Control Variables)

Variable	Obs	Mean	Std. Dev.	Min	Max
roa	180	6.296333	14.48057	-88.99	28.57
tats	180	1.561056	.4512831	.81	3.06
ltds	180	1.253222	.3855166	.61	2.87
stds	180	.3078333	.1944604	.07	1.2
size	180	5.124667	.682228	3.28	6.33

Source: Researchers' Computation, 2018

It can be seen that the mean value of ROA, TATS, LTDS, STDS and SIZE are 6.2963, 1.5610, 1.2532, 0.3078 and 5.1246 respectively with standard deviations of 14.4805, 0.4512, 0.3855, 0.1944 and 0.6822 respectively. The maximum value of the variables was recorded by ROA with value 28.57 and its minimum value (-88.99). The descriptive statistics of mean and standard deviation implies that the variables are relatively clustered around the mean of 6.3%, 1.6%, 1.3%, 0.31% and 5.1% for ROA, TATS, LTDS, STDS and SIZE respectively.

5.2 Correlation Analysis

Presented in Table 4.2 is the correlation matrix of the dependent, independent and control variables of the study. The correlation matrix is used to establish if there is multicollinearity between pairs of independent variables (TATS, LTDS, and STDS).

Table 4.2: Correlation Matrix (Dependent, Independent and Control Variables)

	roa	size	tats	ltds	stds
roa	1.0000				
size	0.3512	1.0000			
tats	-0.1112	0.0397	1.0000		
ltds	0.0042	0.0855	0.9035	1.0000	
stds	-0.2651	-0.0763	0.5299	0.1155	1.0000

Source: Researchers' Computation, 2018

It can be seen that there is multicollinearity among the variables of the variable since the Pearson correlation coefficient exceeds 0.8. This position was further resolved by the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity.

Table 4.3: Heteroskedasticity Test Results

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Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
       Ho: Constant variance
       Variables: tats ltds stds size

       chi2(4)    =     55.97
       Prob > chi2 =    0.0000
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The Breuch-Pagan/Cook-Weisberg test for heteroskedasticity revealed that there is the absence of heteroskedasticity among variables of the study as evidence in the Chi2 (4) = 55.97 with Prob. > chi2 = 0.0000.

5.3   Test of Hypotheses

Hypothesis I

H_{O1}:   *There is no significant relationship between long-term debts to asset ratio and corporate performance*

Table 4.5: Regression Results of Long Term Debts to Asset Ratio (LDTS)
and Return on Assets (ROA)

Source	SS	df	MS			
				Number of obs =	180	
				F(2, 177) =	12.53	
Model	4654.92788	2	2327.46394	Prob > F	=	0.0000
Residual	32879.0267	177	185.757213	R-squared	=	0.1240
				Adj R-squared =	0.1141	
Total	37533.9546	179	209.686897	Root MSE	=	13.629

roa	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ltds	-.9780069	2.652149	-0.37	0.713	-6.211905	4.255896
size	7.501779	1.498689	5.01	0.000	4.544181	10.45938
_cons	-30.92213	8.166929	-3.79	0.000	-47.03921	-14.80504

Source: Researchers' computation, 2018

Presented in Table 4.5, is the regression result of long term debts to assets ratio (LTDS) and return on asset (ROA) of the selected consumer goods firms quoted on the Nigerian Stock Exchange during 2006-2017. The R-squared for LTDS is 0.1240, indicating that the independent explains about 12.40% of the systematic variations in ROA for the selected consumer goods firms quoted on the Nigerian Stock Exchange. The f-ratio indicates that long term debts to assets ratio (LTDS= 12.53; Prob < f = 0.0000) significantly affects return on asset (ROA). In addition, the p-value of LTDS (0.0000) is an indication that there is significant relationship between long term debts to assets ratio and return on asset of the selected quoted consumer firms in Nigeria.

Since the Prob. F (0.0000) is lesser than 0.05% level of significance, we therefore reject the null hypothesis and accept the alternate hypothesis which suggests that long-term debts to asset ratio have significant effect on corporate performance of quoted manufacturing firms in Nigeria. This finding is in tandem with the position of Onoja and Ovayioza, (2015) and Yan (2013) who found clear evidence of a positive relationship between long-term debt and firms' performance.

Hypothesis II

H_{O2}:   *There is no significant relationship between short-term debts to asset ratio and corporate performance*

Table 4.6: Regression Results of Short Term Debts to Asset Ratio (STDS)
and Return on Assets (ROA)

Source	SS	df	MS			
				Number of obs =	180	
				F(2, 177) =	19.49	
Model	6773.83953	2	3386.91977	Prob > F	=	0.0000
Residual	30760.115	177	173.785961	R-squared	=	0.1805
				Adj R-squared =	0.1712	
Total	37533.9548	179	209.686897	Root MSE	=	13.183

roa	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
stds	-17.85807	5.081790	-3.51	0.001	-27.87878	-7.821355
size	7.066326	1.448601	4.88	0.000	4.20777	9.924881
_cons	-24.42139	7.764456	-3.15	0.002	-39.74421	-9.098543

Source: Researchers' computation, 2018

Presented in Table 4.6, is the regression result of short term debts to assets ratio (STDS) and return on asset (ROA) of the selected consumer goods firms quoted on the Nigerian Stock Exchange during 2006-2017. The R-squared for STDS is 0.1805, indicating that the independent explains about 18.05% of the systematic variations in ROA for the selected consumer goods firms quoted on the Nigerian Stock Exchange. The f-ratio indicates that short term debts to assets ratio (STDS= 19.49; Prob < f = 0.0000) significantly affects return on asset (ROA). In addition, the p-value of STDS (0.0000) is an indication that there is significant relationship between short term debts to assets ratio and return on asset of the selected quoted consumer firms in Nigeria.

Since the Prob. F (0.0000) is lower than 0.05% level of significance, we therefore reject the null hypothesis and accept the alternate hypothesis, suggesting that short-term debts to asset ratio have significant effect on corporate performance of quoted consumer goods firms in Nigeria. This means that the result of the study is consistent with the findings of Garcia-Terul and Martinez-Solano (2007), Yan (2013) and Weill (2008) who reported evidence in support of a positive association between short-term debt and firms' profitability (as measured by return on assets).

Hypothesis III

H_{O3}:   *There is no significant relationship between total debts to asset ratio and corporate performance*

Table 4.4: Regression Results of Total Debts to Asset Ratio (TATS)
and Return on Assets (ROA)

Source	SS	df	MS		Number of obs =	180
					F(2, 177) =	14.29
Model	5218.73736	2	2609.36868		Prob > F =	0.0000
Residual	32315.2172	177	182.571849		R-squared =	0.1390
					Adj R-squared =	0.1293
Total	37533.9546	179	209.686897		Root MSE =	13.512

roa	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
tats	-4.022999	2.239668	-1.80	0.074	-8.442887	.3968891
size	7.560107	1.481505	5.10	0.000	4.636421	10.48379
_cons	-26.16657	8.292955	-3.16	0.002	-42.53236	-9.800778

Source: Researchers' Computation, 2018

Presented in Table 4.4, is the regression result of total debts to assets ratio (TATS) and return on asset (ROA) of the selected consumer goods firms quoted on the Nigerian Stock Exchange during 2006-2017. The R-squared for TATS is 0.1390, indicating that the independent explains about 13.90% of the systematic variations in ROA for the selected consumer goods firms quoted on the Nigerian Stock Exchange. The f-ratio indicates that total debts to assets ratio (TATS= 14.29; Prob < f = 0.0000) significantly affects return on asset (ROA). In addition, the p-value of TATS (0.0000) is an indication that there is significant relationship between total debts to assets ratio and return on asset of the selected quoted consumer firms in Nigeria.

Since the Prob. F (0.0000) is lesser than 0.05% level of significance, we therefore reject the null hypothesis and accept the alternate hypothesis which states that there is significant relationship between total debts to asset ratio and corporate performance of quoted consumer goods firms in Nigeria. Similar result was documented by Boroujeni *et al* (2013), although, Makanga (2015) recorded a weak negative correlation between total debts and firm performance.

6. CONCLUSION AND RECOMMENDATIONS

The primary objective of this study was to investigate the relationship between debt financing and corporate performance. To achieve this objective, we used 180 firm-year observations in a panel data form for 15 consumer goods firms listed on the Nigerian Stock Exchange from 2006 to 2017. We proxy corporate performance using return on assets (ROA), which was calculated as profit after tax scaled by total assets. Component of debt financing adopted as explanatory variables for the present study are total debts, long term debts and short term debts.

Results of the study show that all three debt ratios exert positive and significant impact on corporate performance of listed consumer goods firms in Nigeria for the periods studied. Based on the findings of the study, we recommend that listed consumer goods firms in Nigeria should seek to balance the trade-off between the benefits of debt and bankruptcy costs. This implies that a firm needs to choose debt ratio at certain proportion to be better off. Finally, firms should rely less on short-term debt, which forms the major

part of their leverage, and focus more on developing internal strategies that can help improve their accounting performance as their performance for the period studied was very low.

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