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The Impact of Capital Structure on Financial Performance: A Comparative Analysis Of Firms In Nigeria

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Abstract

This study is a comparative analysis of the impact of capital structure on financial performance of firms in Nigeria, targeting the listed oil & gas and consumer goods sectors firms in the Nigeria stock exchange; specifically; 10 companies listed in the oil & gas and consumer goods sectors firms; for the period of 2011-2020 (10years).Secondary data (panel data) which will be sourced from the annual reports and accounts of firms listed oil & gas and consumer goods sectors based on the variables under study. The secondary data obtained is presented in a tabular form, and analyzed through the application statistics, panel unit root test, correlation matrix and regression analytical technique using the E-VIEW (version 9.0) statistical tool. The findings revealed that Long Term Debi Ratio (LTDR) has positive and insignificant effect on Return on Assets (ROA) of listed oil and gas firms while positive and significant effects on Return on Assets (ROA) of listed consumer goods firms in Nigeria; Total Debt Ratio (TDR) has a negative and insignificant effect or Return on Assets (ROA) of listed oil & gas and consumer goods firms in Nigeria; Debt to Equity Ratio (DTER) has positive and insignificant effect on Return on Assets (ROA) of listed oil and gas firms while positive and significant effects on Return on Assets (ROA) of listed consumer goods firms in Nigeria and Short Term Debt Ratio (STDR) has positive and significant effect on Return on Assets (ROA) of listed oil and gas firms while negative and significant effects on Return on Assets (ROA) of listed consumer goods firms in Nigeria. The study concluded that capital structure exerts mixed effect on performance of listed oil and gas and consumer goods firms in Nigeria. The study, therefore, recommends that short-term debits in oil and gas and consumer goods companies in Nigeria should be applied to short term business proposals to maximize their significance in capital structure decisions which has the tendency to affect their ROA. These companies should rely more on equity financing.

Keyword: *Financial Performance, Comparative Analysis, Capital Structure, Firms in Nigeria.*

Introduction

One of the most important aspects of corporate finance is selecting how to fund the company's operations. Internal or external finance sources are available to businesses. The combination of internal and external financial sources is important to the company's success or failure (Olayemi and Fakayode, 2021). This is a critical decision that will affect the firm's capacity to

compete effectively in its market. If a company relies only on equity capital and internal funding, it may have difficulty expanding and capitalizing on market opportunities. As a result, businesses may take on loan financing to develop and boost their earning potential (Opoku-Asante, Winful, Sharifzadeh and Neubert, 2022).

Capital structure is core to the financing decision of firms because it assists in the assignment of debt and equity into the financing profile. Debts are funds raised via borrowings (largely from banks and the loan market) while equities are those sourced from sale of stocks (securities). The firm reserves the right to select between the two or to pursue a combination of debt and equity or hybrid instruments, the ultimate goal is to make decisions based on efficiency in terms of minimizing costs while simultaneously generating maximum returns (Asaolu, 2021).

Capital structure is the mix of finance used by the company, as the source of long-term finance. Companies' sources of finance are classified into two groups which are referred to as debt or borrowed capital, and equity (Oke and Fadaka, 2021). Equity is the capital provided by the owners of the corporation, which in turn give them rights to have shares in the company. The issue with borrowed funds is that the business enterprise has to pay the agreed interest rates on yearly basis until the borrowed fund is paid (Oke and Fadaka, 2021). Regardless of low sales, reduced earnings, or any other scenario that affects the firm's capability and operations, the company employing borrowed cash will have to satisfy its financial obligations (Ganiyu, Adelopo, Rodionova& Samuel, 2019).A firm can source for fund; either internally or externally or both, which constitute the firm's structure of capital (Sharon and Celani, 2019). Structure of capital refers to the blend of firm's financial liability (Uremadu and Onyekachi, 2019).

The capital structure of a company is crucial in determining the stability and profitability of the enterprise. Professionals and researchers further affirm that capital structure of high debt proportion has the capability to stimulate the profitability of the enterprise in the long run (Chadha and Sharma, 2015). Nevertheless, the capacity of high debt ratio to influence profitability positively comes with the risk of bankruptcy in a situation where the growth experienced by the company, in the long run, is temporarily hampered by environmental forces (Oke and Fadaka, 2021). Since, the study is a comparative study; the focus of the study will be aimed at comparing oil and gas sector firms listed in the Nigeria stock exchange.

In Nigeria, deposit money banks have great preference to surrendering to loan request of oil and gas companies compared to entrepreneurs in the general commerce and other sectors of the economy which they perceived as very fragile and risky. The level of competition and technological innovation in the oil & gas and consumer goods sector in recent times has made capital structure decisions an important aspect of management and a pre-requisite for firm's survival. Capital structure decisions to finance a firm's operations may be avenues for a firm to face liquidation, fall into financial distress or eventually be declared bankrupt (Omukaga, 2017).

Capital structure represents a firm's financial framework which consists of debt and equity. It measures the extent to which debt level of a firm's barrowed funds are invested to enhance firms' performance; thus, it involves the appropriate combination of debt and equity capital used in running

the business. Because organizations attempt to adopt a financing mix that minimizes cost and maximizes financial performance, a financing manager is concerned with determining the appropriate financing mix (debts and equity) for the firm (Habibu, Abdu, Murtala&Sulaiman, 2019).

Short-term finances are required to finance an entity's working capital. Raw material purchases, payroll and labor payments, fished goods inventory demands, and so on are examples of short-term finance requirements. As a result, any source of money from which funds are loaned and borrowed for a period of less than a year can be described as a short-term finance source. The inability to fund medium and long-term funding needs with short-term cash is due only to a lack of professional financial management. Similarly, financing short- and medium-term funding demands with long-term capital is poor financial management. Analysts in the field of finance are debating whether to advise businesses on the appropriate capital structure to use when making choices (Olarewaju, 2019).

Abubakar, Maishanu, Abubakar, &Aliero (2018) affirm that inappropriate combination of different sources of capital, particularly between debt and equity is desirable for every business entity. However, prior literature like Abubakar (2017), Abata&Migiro (2016) and Oladeji, Ikpefan & Olokoyo (2015), explained that debt capital is seen to be cheaper (in terms of inherent risk) than equity capital. There are different schools of thought on the optimal level of leverage that a firm can undertake. One of the viewpoints specifies a point at which the trade-off between the cost of bankruptcy and the tax benefit gained by charging interest expenditures can be realized (Ahmed, Awais, &Kashif, 2018).

The framework for determining the optimal capital structure of debt and equity is one that describes how equity and debt are utilized to finance corporate activities. It is important to strike a balance between the firm's risk and returns in the intended capital structures to maximize firm value. Therefore, striking a balance between the risks and returns in firm's operation is the purpose of capital structure. Though, the firm raises equity by ways of issuing common and preferred stocks and debt in the form of loans, bonds, debentures, note payable etc. The owners of the firm are equity holders who have a long-term commitment to the firm in consideration that will grow in future. While the debtor is the firm's creditor, the debtor has a long-term commitment to the firm in exchange for interest and principal repayment at regular intervals (Ajayi&Zahiruddin,2016).

Furthermore, deciding on an ideal capital mix has proven to be a difficult challenge for most businesses. The Nigerian Oil & Gas and Consumer Goods sectors are important drivers of the Nigerian economy; however, several companies have recently gone bankrupt due to financial difficulties. The width and depth of the various financial markets in Nigeria are used to determine the optimal capital mix in the business sector. Also, enterprises in the Oil & Gas and Consumer Goods sectors require long-term, medium-term, and short-term financing to run their operations; most of these Oil & Gas and Consumer Goods sector firms finance their operations through financial leverage. Choosing the best capital mix, on the other hand, causes financial friction in most businesses.

The debt level in oil & gas and consumer goods sector firms determine the amount of fixed costs paid by the oil & gas and consumer goods sector firms. The cost of

debt, which is commonly referred to as interest amount, is a fixed expense connected with debt/borrowed funds. Also, oil & gas firms that borrow so much from their creditors incur high cost of debt hence lowering the profits/net income, thus, financial leverage/debt affected company's financial performance and income levels of companies listed in oil & gas and consumer goods sectors in Nigeria.

Also, despite the huge credit oil and gas companies received from deposit money banks, they are yet the highest sector indebted to the banking sector. As of 31st February 2018, oil and gas sector indebtedness to deposit money banks in Nigeria reached N3.58trillion (Asaolu, 2021). With this scenario in a lay man thinking, one would wonder why deposit money banks have great preference in lending to this oil and gas companies at the detriment of the real sectors of the economy. Moreover, to the best of my knowledge, there is only one study that has been conducted on comparative analysis of the impact of capital structure on financial performance of firm (that is the study of Asaolu, 2021), while the other studies are either focused on one sector or the other. Also, empirical findings on the nexus between capital structure and firms' financial performance in oil & gas and consumer goods sectors in Nigeria are mixed. In other words, there is no agreement by scholars on the effect of capital structure on financial performance of oil & gas and consumer goods sector companies in Nigeria. Asaolu's (2021) study, for example, reveals that while debt structure enhanced business performance, a fast increase in such leverage tends to lower firm's performance for all of the firms studied. Asset tangibility, interest payment and dividend growth, directors' shares/inside ownership, and non-debt tax shield are all relevant coefficients in the outcome. They indicate positive associations, showing that these variables have an impact on business performance on average across both sectors; specifically, the results show that firms that are more efficient in terms of taxation shielding perform better. Total debt to total assets has no significant effect on return on assets of oil and gas companies quoted on the Nigerian Stock Exchange, but total debt to total equity has a significant effect on return on equity of oil and gas companies quoted on the Nigerian Stock Exchange, according to Okonkwo, Adigwe, Ezu, and Oko (2020) findings from data analyzed. According to Oyakhire (2019), capital structure and financial performance have a considerable relationship.

Bashiru and Bukar (2016) discovered that the capital structure of listed petroleum marketing companies in Nigeria, as measured by STD, LTD and TD has a negative and substantial association with financial performance (ROA and EPS). As a result, this research aims to increase understanding and close the gap to the smallest possible extent. While Opoku-Asante, Winful, Sharifzadeh and Neubert (2022), using sectorial analysis, established a significant negative relationship between capital structure and financial performance. Debt maturity did not affect the relationship between capital structure and financial performance. Adeoye and Olojede (2022) investigated the impact of capital structure on firm's performance in the food and beverages manufacturing industries, in Nigeria, discovered that Debt finance significantly impacted the performance of the industries (ROCE, ROA, and EPS) negatively. While the impact Firms size have on the selected food and beverages industries was relatively low, Equity finance

contributed hugely and positively to the performance of the firm and Olayemi and Fakayode (2021) examined the effect of capital structure on financial performance of quoted manufacturing companies in Nigeria, established that SDTAR and LDTAR have positive but insignificant effects on ROA, and TDTAR has a negative significant effect on ROA and ROE respectively. Also, TDTAR and TDTER have negative insignificant effects on ROE. The study concluded that SDTAR, LDTAR, TDTER have no significant effect on ROA and ROE, but TDTAR have effect on ROA.

Based on prior studies, very few studies have done comparative analysis on the impact of capital structure on financial performance and other studies, either focus on one sector or the other. However, there is dearth of studies on comparative analysis on the impact of capital structure on financial performance in Nigeria firms by comparing firms listed in the Oil & Gas and consumer goods sector. The analysis is unique in the light of looking at the listed Oil & Gas consumer goods sector firm in Nigeria Stock Exchange.

Literature Review

Opoku-Asante, Winful, Sharifzadeh and Neubert (2022) aimed to investigate, using a sectorial analysis, the relationship between capital structure and financial performance and consider the effect of debt maturity on the relationship. The relationship between capital structure and financial performance, considering the debt maturity, using 425 cross-sectional firm-year samples from firms in Ghana and Nigeria from 2014 to 2019. The empirical findings suggested a significant negative relationship between capital structure and financial performance. Debt maturity did not affect the relationship between capital structure and financial performance. However, the Industry influences the direction of the relationship between capital structure and financial performance. In addition, debt maturity influences capital structure performance relationship in specific sectors but not the market. This paper extends on previous studies on the relationship between capital structure and financial performance by incorporating sectorial and debt maturity on firms in Ghana and Nigeria. The findings of this study will assist finance managers in maximizing performance by considering financially sensible heterogeneities such as the sector and the funding source when making financing decisions.

Adeoye and Olojede (2022) investigated the impact of capital structure on firm's performance in the food and beverages manufacturing industries in Nigeria. We adopted an ex-post factor research design, which involves the use of cross-sectional time series data extracted from the audited annual accounts of ten food and beverages industries quoted in the Nigeria stock exchange covering the period of six years (2012-2017). To measure the strength of association between the variables, Pearson Product moment correlation analysis was used and the result revealed that size of firm and equity are positively correlated with financial performance.

However, from the panel regression results, we found out that Debt-finance significantly impacted the performance of the industries (ROCE, ROA, and EPS) negatively. While the impact Firms size have on the selected food and beverages industries was relatively low, equity finance contributed hugely and positively to the performance of the firm. This study therefore concludes that investment financed by equity increases the value of firm more than when it is financed through debt. Based on the findings, the

study therefore recommends that firms should consider taking debts with lower costs to avoid erosion of shareholders' value and the risk of bankruptcy. Furthermore, due to manipulative tendencies in reporting profits, financial performance measurement should be based on share prices rather than accounting profits.

Olayemi and Fakayode (2021) examined the effect of capital structure on financial performance of quoted manufacturing companies in Nigeria. The study covered ten companies for a period of seven years from 2013 to 2019. Panel data analysis was used to test the hypothesis. The independent variables used are total debt to total asset ratio (TDTAR), long-term debt to total assets (LDTAR), short-term debt to total assets (SDTAR) and total debt to total equity (TDTER) while the dependent variables are returned on assets (ROA) and return on equity (ROE). The results of the study showed that SDT AR and LDTAR have positive but insignificant effects on ROA, and TDTAR has a negative significant effect on ROA and ROE respectively. In addition, TDTAR and TDTER have negative insignificant effects on ROE. The study concluded that SDTAR, LDTAR, TDTER have no significant effect on ROA and ROE, but TDTAR have effect on ROA. This study therefore recommended that firms should be cautious in accumulating debt that could eventually have adverse effects on their value and financial performance.

Oke and Fadaka (2021) looked on the financial structure and performance of Nigerian consumer goods manufacturing companies that were listed on the stock exchange. This research was prompted by inconsistencies in previous findings about the relationship between capital structure and firm performance. Secondary data was gathered from consumer products manufacturing companies that are publicly traded in Nigeria. This study included eighteen enterprises, and the panel data approach was utilized to sample the 18 listed manufacturing firms from 2008 to 2018. As the dependent variable, the study used the popular accounting and financial indicators used in the enormous literature on the subject issue, such as return on equity, return on asset, Tobin's Q, and earnings per share. Capital structure, long-term debt, short-term debt, total debt ratios, and growth were used to measure the study's independent variable. Size was also included as a control variable in the study. According to the findings of this study's regression analysis, business performance in listed Nigerian manufacturing firms has a negative association with capital structure. In addition, for the 18 consumer products manufacturing companies, growth and performance exhibited a favorable link.

Asaolu (2021) investigated the effects of capital structure on the performance of the Oil & Gas and Manufacturing sectors in the United States, as well as the disparities in their dynamics. The study used secondary data from the New York Stock Exchange (NYSE)/NASDAQ for a ten-year period, from 2010 to 2019. The estimation findings were generated using E-View 9.0. To evaluate the specified hypotheses, the inquiry used the panel least square estimation approach and sectoral analysis on the data acquired. The findings demonstrated that, while debt structure enhanced business Mohsin (2020) investigated the effect of three types of the degree of leverage, degree of operating leverage, degree of financial leverage and the degree of combined leverage on the financial performance of the firms of food and fertilizer sector registered under PSE.

The sample of the study includes 20 listed companies for the time period 2008-2015. Some of the companies have been excluded because the data was not available for this study period. Descriptive statistics, correlation analysis, unit root test, and random effect regression model were among the statistical tests employed in this study. The firm's financial performance was assessed using metrics such as ROA (return on assets), EVA (economic value added), and Tobin's. Because the financial performance of firms is influenced by more than just leverage, firm size was utilized as a control variable in this study. The findings of this study show that while financial leverage and combined leverage have no significant influence on financial performance as evaluated by return on assets, the degree of operating leverage has a negative substantial impact. The size of a company has no bearing on its financial performance as assessed by ROA. The DOL (degree of operating leverage) and DFL (degree of financial leverage) have a significant and adverse impact on a firm's financial performance as measured by EVA (economic value added) (degree of financial leverage). DOL (degree of financial leverage), DFL (degree of operating leverage), and DCL (degree of capital leverage) have no effect on Tobin's q performance (degree of combined leverage). The size of a company has a considerable negative impact on Tobin's Q performance. The findings of this study corroborate the pecking order hypothesis of capital structure since leverage has a large and negative impact on company performance assessed in terms of economic value added. According to the study's conclusions, business managers should keep fixed costs under control to avoid operating leverage and concentrate on increasing revenue. Furthermore, in order to avoid liquidation, management should pay greater attention to the ideal level of debt and equity financing, and with technological improvement, businesses must invest in more efficient and technologically advanced assets, which will lead to increased efficiency. Rather than investing cash in less profitable huge assets, companies should invest them in initiatives with a positive net present value.

Kithandi and Katua's research was aimed at supporting financial managers in identifying whether financial leverage has an impact on financial performance (Kithandi and Katua, 2020). Financial leverage is measured using debt ratios, debt-to-equity ratios, and interest coverage ratios, all of which are important because they have a direct impact on a company's financial success. The purpose of this study was to determine the impact of debt ratios, debt-to-equity ratios, and interest coverage ratios on the financial performance of energy and petroleum sector companies listed on the Nairobi Securities Exchange. The Modigliani-Miller theorem, the Pecking Order Theorem, and the Trade-off Theorem were used to anchor the research. Because the population is so small, the study relied on census data. All five energy and petroleum businesses listed on the Nairobi Securities Exchange were investigated. The energy and petroleum sector is a critical component of any nation's industrialization and a critical support sector for all other economic sectors. The study relied on secondary data, which was mostly gathered from these companies' publicly available financial filings. The study employed an explanatory research design. Quantitative secondary data was gathered and evaluated using social science statistical software.

Measures of central tendency, such as mean, frequencies, and percentages, as well as

measures of dispersion, such as standard deviation, were used to depict this data. To determine the relationship between the variables in the study and to estimate the models for the study, the researchers used a multiple regression equation. The data was analyzed using descriptive statistics. The data examined was subsequently presented in tables, charts, and graphs in order to develop a conclusion and provide recommendations. The influence of debt ratio on return on assets was studied, and it was discovered that as the debt ratio climbed, so did the return on assets. The impact of debt equity ratio on return on assets was studied, and it was discovered that as the debt equity ratio increased, the return on assets fell. In conclusion, the findings revealed that financial leverage and financial performance of petroleum and energy sector enterprises listed on the Nairobi Securities Exchange have a negative association.

Research Method

This research is planned and carried out using the ex-post Facto research design technique. The design involves the collection of secondary data from the annual report and account of 10 companies in the Oil & Gas sector to be evaluated using appropriate tools. The analysis made use of Judgmental Sampling Techniques. The statistical technique of data analysis adopted descriptive statistics. The data were analyzed via measure of central tendencies, standard deviation to assess the spread of the variable among the studied companies, and minimum as well as maximum value for the variables.

The panel unit test was conducted to ascertain the stationarity in the panel data set while the Pedroni Residual Cointegration Test was conducted to determine long relationship in the data set among the variables. The data were computed for the period of 2011-2020. The multiple regression was chosen using Ordinary Least Square (OLS)method by using E-view 9.0 Statistical computer software to analyze the data in order to establish the kind of relationship between the dependent and the independent variable used. Okonkwo, Adigwe, Ezu&Oko (2020) and Oyakhire (2019).

Pearson correlation and multiple regression estimation techniques were applied. The model which specifies that performance (proxy with Return on Assets (ROA) is significantly influenced by variables of capital structure {Long Term Debt Ratio (LTDR), Total Debt Ratio (TDR), Debt to Equity Ratio (DTER) and Short-Term Debt Ratio (STDR) are formulated as follows,

ROA=f (LTDR, TDR, DTER, STDR)

$$ROA=BO+\beta_1 LTDR+\beta_2 TDR+\beta_3 DTER+\beta_4 STDR+E$$

Where;

ROA=Return on Assets

LTDR=Log Term Debt Rat

TDR=Total Debt Ratio

DTER=Debt to Equity Ratio

STDR=Short Term Debt Ratio

E=Error Term

βo=Intercept

β1-βs=Coefficient of the Independent Variables.

The a priori expectation is β1, β2, β3, β4, is lesser or greater than 0.

Table 1.3: Measurement of Variables

Variables	Formula	Expected Signs	Type of Variable
Return on Assets (ROA)	Net Profit/Total Asset	+/-	Dependent Variable
Long Term Debt Ratio (LTDR)	Long Term Debt/Total Asset	+/-	Independent Variable
Total Debt Ratio (TDR)	Total Debt/Total Asset	+/-	Independent Variable
Debt to Equity Ratio (DTER)	Total Debt/Total Equity	+/-	Independent Variable
Short Term Debt Ratio (STDR)	Short Term Debt/Total Asset	+/-	Independent Variable

Source: Computation Basis for the Variables, 2022.

Result

Table 1.4: Descriptive Statistics

Descriptive Statistics for Oil and Gas Firms

	ROA	LDTR	TDR	DTER	STDR
Mean	6.356028	0.235799	0.680851	2.356007	0.511944
Median	0.030517	0.110413	0.696838	2.058642	0.539965
Maximum	13.35961	1.801022	1.375801	15.90025	1.072479
Minimum	10.30597	0.000671	0.056357	-13.04063	0.069330
Std. Dev.	37.83394	0.297789	0.212858	2.959737	0.243454
Skewness	6.232559	2.661916	0.304990	-0.617708	-0.120362
Kurtosis	41.35872	12.58251	5.194597	13.68659	2.040659
Jarque-Bera	6574.865	490.6850	21.18568	472.5620	3.994652
Probability	0.000000	0.000000	0.000025	0.000000	0.035698
Sum	-616.5347	23.10826	66.72345	230.8887	50.17052
Sum Sq. Dev.	137415.1	8.601766	4.394926	849.7243	5.749195
Observations	97	98	98	98	98

Descriptive Statistics for Consumer Goods Firms

	ROA	LDTR	TDR	DTER	STDR
Mean	0.074136	0.183401	0.547700	1.668332	0.402378
Median	0.069874	0.151373	0.529767	1.126609	0.343097
Maximum	0.297832	1.882400	4.384140	47.92299	2.501740

Minimum	-0.340632	0.006876	-0.504471	-2.982845	-0.013399
Std.Dev.	0.095528	0.212679	0.501113	4.846010	0.384559
Skewness	-0.803200	5.505437	4.975772	8.861233	3.441211
Kurtosis	6.065540	42.62625	37.43278	84.76089	17.51219
Jarque-Bera	51.57687	7047.829	5352.707	29162.21	1074.881
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	7.413580	18.34012	54.77000	166.8332	40.23779
Sum Sq. Dev.	0.903434	4.478005	24.86033	2324.897	14,64070
Observations	100	100	100	100	100

Source: E-VIEW Version 9.0 Output,2022.

The Return on Assets (ROA) for the ten (10) consumer goods firms had a mean of 0.0741 for the period 2011 to 2020, with a maximum and minimum of 0.2978 and-0.3406 respectively while the standard is 0.0955. While the ten (10) consumer goods firms Long Term Debt Ratio (LTDR) have a minimum value of 0.069, maximum value of 1.8824, an average value of 0.1834 and standard deviation value of 0.2127.This shows that Total Debt Ratio (TDR) volatility is about 21.29%, when compare to the consumer goods sector with a minimum value of-0.5045, maximum value of 4.3841,an average value of 0.5477 and standard deviation value of 05011. More also, Debt to Equity Ratio (DTER) oil and gas firms recorded a minimum value of -13.0406,maximum value of 15.900, an average value of 2.9597 and standard deviation value of 47.9230.Finally,Short Term Debt Ratio (STDR) oil and gas firms recorded a minimum value of 0.0693, maximum value of 1.0724, an average value of 0.5119 and standard deviation value of 0.2435.

Table 4.3.1: Pearson Product Correlation output of the Independent and Dependent Variables

	ROA	LDTR	TDR	DTER	STDR
ROA	1.000000				
LDTR	-0.242963	1.000000			
TDR	-0.463052	0.720154	1.000000		
ROA	1.000000				
LDTR	-0.127675	1.000000			
TDR	0.091437	-0.035311	1.000000		
DTER	0.058245	-0.151705	0.231319	1.000000	
STDR	0.286145	-0.398436	0.639339	0.189205	1.000000
Correlation Statistics for Consumer Goods Firms					

The Long-Term Debt Ratio (LTDR) is strongly negatively correlated with financial performance proxied by Return on Assets (ROA) for both sectors with the coefficients of -0.1277 and -0.2430 recorded for the oil & gas and consumer goods sector respectively is greater than 0.05. With correlation coefficient (r) of 0.0914, which indicates a strong positive

correlation between Total Debt Ratio (TDR) and return on Assets (ROA) for the oil and gas firms when compared to the consumer good sectors which recorded a strong negative correlation of -0.4631 between Total Debt Ratio (TDR) and financial performance proxy by Return on Assets (ROA), With correlation coefficient (r) of 0.0582, which indicates a strong positive correlation between Debt to Equity Ratio (DTER) and Return on Assets (ROA) for the oil and gas firms when compare to the consumer good sectors which recorded a strong negative correlation of -0.4787 between Debt to Equity Ratio (DTER) and financial performance proxy by Return on Assets (ROA), With correlation coefficient (r) of 0.2861, which indicates a strong positive correlation between Short Term Debt Ratio (STDR) and Return on Assets (ROA) for the oil and gas firms when compare to the consumer good sectors which recorded a strong negative correlation of-0.5001 between Short Term Debt Ratio (STDR) and financial performance proxy by Return on Assets (ROA),

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-19.36941	13.16397	-1.471396	0.1446
LDTR	3.897540	14.53646	0.268122	0.7892
TDR	-30.30605	24.42025	-1.241021	0.2178
DTER	0.334731	1.311818	0.255166	0.7992
STDR	62.62886	22.96872	2.726702	0.0077
R-squared	0.097223	Mean dependent var		-6.356028
Adjusted R-squared	0.057972	S.D. dependent var		37.83394
S.E. of regression	36.72093	Akaike info criterion		10.09474
Sum squared resid	124055.2	Schwarz criterion		10.22746
Log likelihood	-484.5949	Hannan-Quinn criter.		10.14841
F-statistic	2.476938	Durbin-Watson stat		1.966610
Prob(F-statistic)	0.049531			

Source: E-VIEW Version 9.0 Output, 2022.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.097229	0.015737	6.178543	0.0000
LDTR	0.176131	0.068929	2.555238	0.0122
TDR	-0.021452	0.032831	-0.653393	0.5151
DTER	-0.011261	0.003375	-3.336385	0.0012
STDR	-0.061781	0.030373	-2.034084	0.0447
R-squared	0.354664	Mean dependent var		0.074136
Adjusted R-squared	0.327492	S.D.dependent var		0.095528
S.E. of regression	0.078339	Akaike info criterion		-2.206830
Sum squared resid	0.583018	Schwarz criterion		-2.076571
Log likelihood	115.3415	Hannan-Quinn criter.		-2.154112
F-statistic	13.05255	Durbin-Watson stat		0.933337
Prob(F-statistic)	0.000000			

Source: E-VIEW Version 9.0 Output, 2022.

The coefficient of Long-Term Debt Ratio (LTDR) is 3.8975 with a t-value of 0.2681and associated p-value (sig. value) is 0.7892 was recorded for the oil and gas firms. The consumer goods firms for Long Term Debt Ratio (LTDR) are 0.1761 with a t-value of 2.5552 and associated p-value (sig. value) is 0.0122 was recorded for the oil and gas firms. The coefficient of Total Debt Ratio (TDR) is-30.3061 and-0.0125, with a t-value of-1.2410 and-0.0125 and associated p-value (sig. value) is 0.2178 and 0.5151 for the oil & gas and consumer goods sectors firms respectively. The coefficient of Debt-to-Equity Ratio (DTER) is 0.3347 and -0.0113, with a t-value of 0.2552 and -3.3364 and associated p-value (sig. value) are 0.7992 and 0.0012 for the oil & gas and consumer goods sectors firms respectively. The coefficient of Short-Term Debt Ratio (STDR) is 62.6289 and -2.0618, with a t-value of2.7267 and-2.0341 and associated p-value (sig. value) are 0.0077 and 0.0447 for the oil & gas and consumer goods sectors firms respectively.

Conclusion and Recommendation

The p-value of Long-Term Debt Ratio (LTDR) are 0.7892 and 0.0122 for the oil & gas and consumer goods firms respectively, which are more than the set value of 0.05for the oil & gas firm while the consumers goods firm as is less than 0.005. This finding is in line with the findings of Oke and Fadaka (2021), Kithandi and Katua (2020),but contradicts the findings of Abubakar (2020), and Olarewaju, (2019).The p-value of Total Debt Ratio (TDR) are 0.2178 and 0.5151 for the oil & gas and consumer goods firms respectively, Which is more than the se value of 0.05 for the oil & gas and consumer goods firms.. This finding is in line with the findings of Oke and Fadaka (2021), Alamgir, Abdullah & Khalid (2019), but contrary with the findings of Abubakar (2020), Okonkwo, Adigwe, Ezu and Oko (2020). The p-value of Debt-to-Equity Ratio (DTER) is 0.7992 and 0.0012 for the oil & gas and consumer goods firms respectively, which is more than the set value of 0.05 for the oil & gas firms, which the consumers goods firms is lesser than 0.005. This finding is in line with the findings of Okonkwo, Adigwe, Ezu and Oko (2020). The p-value of Short-Term Debt Ratio (STDR) are 0.0077 and 0.00447 for the oil & gas and consumer goods firms respectively, which is less than the set value of 0.05 for the oil & gas firms and the consumers goods firms. This finding is in line with the findings of Abubakar (2020), Kithandi and Katua (2020), Olarewaju, (2019) and Alamgir, Abdullah & Khalid (2019).

Recommendation

Based on the findings the study therefore recommend that short-term debts in consumer goods companies in Nigeria should be applied to short term business proposals to maximize their significance in capital structure decisions which has the tendency to affect their ROA. These companies should rely more on equity financing. Similarly, long term debts should be applied to long term business plans of the consumer goods firms in Nigeria to maximize their earning potentials as well as generate reasonable utility for the debt. Again, equity financing should be the first line approach. Total debt ratio and long-term debt to total assets have negative significant effect on firms' performance as shown in the panel regression result of this study. The judicious mix of debt to total asset and debt to common

equity can achieve optimal performance of firms in the consumer goods sector. Therefore, firms should always thrive to attain that optimal mix in order to achieve the overall objective of the organization. Oil & Gas and Consumer Goods Firms quoted on the NSE should increase the equity portion of the debt-equity mix in their capital structure to improve firms' financial performance.

Contribution to Knowledge and Limitation of Research

The study contributed to knowledge by showing the impact of ROA on listed Oil & Gas and consumer goods sector firms in Nigeria. Again, the study contributed to knowledge by filling the gap in the literature with the comparison of the Oil & Gas and consumer goods sector in the Nigeria stock exchange which as shown the relationship between these variables.

The study only uses one measurement of capital structure on financial performance (ROA) to long term debt ratio, total debt ratio, debt' to equity ratio and short-term ratio. Past studies suggest that financial performance could be determined by number of measurements like book per-share, earning per-share, return on equity, value per-share, etc. Which in this study did not apply, this is the main limitation of this research. Consequently, future studies can expand the scope to include more firms or engage other sectors for a more robust result.

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