Original Research Article

Impact of Capital Structure on Financial Performance of Selected Quoted Food and Beverages Manufacturing Industries in Nigeria

ABSTRACT

The major financing decision is the capital structure employed by corporate entity. It affects the determination of the returns accrued to providers of capital as the primary objective of a corporate entity is anchored on the maximization of the wealth of its shareholders. In order to determine the blend of financial capitals that maximizes firm's performance, this study therefore investigates the impact of capital structure on performance of food and beverages 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 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 that Debt finance and Long term debt to total asset significantly impacted the performance of food and beverages industries negatively. This study therefore concluded that over dependence on external financing decreases the value of firm while equity finance improves firm's value. It is therefore, recommended that in order to minimize the negative impacts of huge debts employed on firm's value, debt with lower cost of borrowing should be embraced and priority should be placed by firms on increase in share prices than increase in accounting profits.

Keywords*:* Debt finance, Equity finance, Firms size, Profitability

1. INTRODUCTION

The major financing decision is the capital mix employed by corporate entity. It affects the determination of the returns accrued to providers of capital as the primary objective of a corporate entity is anchored on the maximization of the wealth of its shareholders

The overall objective of any firm in a contemporary business environment is for the owners' wealth to be maximized. In other words, the business must obtain and effectively appropriate the available funds efficiently for the smooth operation of the business. The effective raising and management of funds is central to the firm's finance function. Financing decision is one of the three core decision areas in financial management which involves the identification of the appropriate sources of funds that would be used to finance projects.

According to Pandy [1] the decision regarding capital structure should be viewed from the point of its effect on the firm's value. He noted that under favorable economic conditions, the earning per share of a firm should increase with financial leverage. However, the increase in leverage is expected to increase also shareholders' financial risk but it is uncertain if this will result to increased value of the firm or not. Over the decades,

the associations between the firm's value and decisions on capital structure have been investigated extensively.

A firm contemplating to raise funds through the issue of debt must ensure that the earnings to be generated with such funds must at least be at equilibrium to the cost of debt. If the earnings that are generated fall below the cost of such funds, it will reduce the earnings due to shareholders because holders of debt instruments have prior claims to income before the equity holders. To realize the desired results, quoted firms in Nigeria and even in other countries need to plan for an optimum capital structure. This is because it is the optimum capital structure that maximizes the value of the firm. However, despite the efforts made by financial managers to maximize owners' expected value in terms of their financing decisions, the problem of choosing between equity and debt are faced by many firms, especially in funding their long term worthwhile investment opportunities.

1.3 Research Questions

1. Is there any significant impact of debt on performance of quoted food and beverages manufacturing firms in Nigeria?
2. To what extent does equity have impact on performance of quoted food and beverages manufacturing firms in Nigeria?
3. Is there any significant relationship between long term debt to total assets and performance of quoted food and beverages manufacturing firms in Nigeria?
4. Is there any significant relationship between firm's size and performance of quoted food and beverages manufacturing firms in Nigeria?

1.4 Objectives of the Study

The broad objective of this study is to examine the impact of capital structure on the performance of selected quoted food and beverages manufacturing firms in Nigeria. The specific objectives sought to:

1. Determine the effect of debt on financial performance of quoted food and beverages manufacturing firms in Nigeria.
2. Examine the impact of equity on financial performance of quoted food and beverages manufacturing firms in Nigeria.
3. Assess the influence of long-term debt total assets ratio on financial performance of quoted food and beverages manufacturing firms in Nigeria.
4. Investigate the effects of firm's size on financial performance of quoted food and beverages manufacturing firms in Nigeria.

1.5 Statement of Hypotheses

To achieve the above mentioned objectives, the following six hypotheses were formulated for the study and stated in their null-form below:

Ho_1 Debt finance has no significant impact on performance of quoted food beverages manufacturing firms in Nigeria.

Ho_2 Equity finance has no significant impact on performance of quoted food and beverages manufacturing firms in Nigeria.

Ho_3 Long-term debt to total assets ratio has no significant impact on performance of quoted food and beverages manufacturing firms in Nigeria.

$H0_4$ Firm's size has no positive and significant effect on performance of quoted food and beverages manufacturing firms in Nigeria.

2. LITERATURE REVIEW

2.2.1 Concept of Capital Structure

Adeoye and Olojede [2] define capital structure as the integration of various sources of funds within or outside the firms' terrain in financing its worthwhile investments or projects with positive net present value. It implies how a firm finances its overall operations and sustains its growth by using different sources of funds.

Capital structure is the means by which an organization is financed. It is also a company's proportion of short and long term debt and is considered when analyzing capital structure. It is the mix of debt and equity maintained by a firm.

[3] opined that capital structure is the mixture of diverse securities utilized by a company in financing its profitable ventures. What is common to the above definition is that capital structure reflects each component of finance from equity to debt that a company uses in financing its operations. The capital structure of a firm is defined as the arrangement of its financial liability.

According to Chava and Roberts [4] the concept can therefore be referred to as the way a corporation finances its assets through a combination of equity and debt.

[5] sees capital structure as a blend of both equity and loan financing in an entity. It's evident from all the above definitions that structure of capital is simply the composition of an organization liability which could be either in form of debt finance or equity finance or both

2.2.2 Conceptual Model

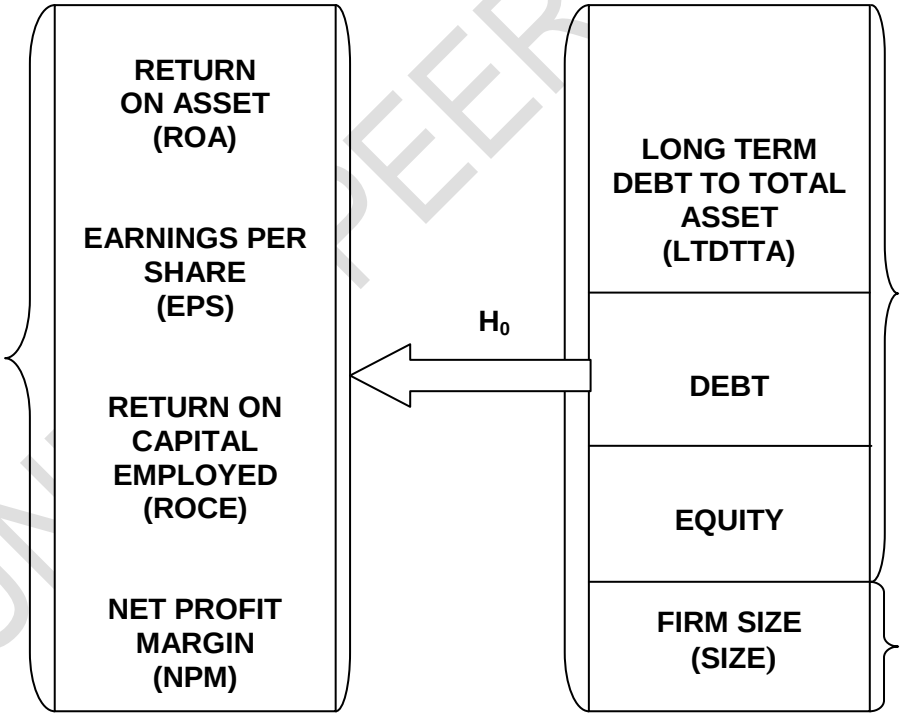

Fig 1: Author's Conceptualization (2020)

2.3 Theoretical Review

2.3.1 The traditional theory of capital structure

The traditional approach to capital structure advocates value of a firm is affected by capital structure and that there is a right combination of equity and debt in the capital structure, at which the market value of a firm is maximum. As per this approach, debt should exist in the capital structure only up to a specific point, beyond which, any increase in leverage would result in the reduction in value of the firm. As debt is introduced into the firm, capital structure will be changing and at different leverage, market price may not be the same. The validity of the traditional position has been questioned on the ground that the market value of the firm depends upon its net operating income and risk attached to it. The traditional view is criticized because it implies that the totality of risk incurred by all security holders of a firm can be altered by changing the way in which this totality of risk is distributed among the various classes of security.

2.4 Empirical Review

2.4.1 Capital Structure and Firm's Performance

Adeoye and Olojede [2] empirically looked into the effect of capital structure on firms' financial performance using panel regression analysis and granger causality test in achieving their stated objectives. They focused their attention on ten (10) listed deposit money banks (DMBs) in Nigeria and the results of their study shows that capital structure have a negative effect on the financial performance of deposit money banks in Nigeria and recommended that while the finance manager is sensitive to the movement in the stock market, management should take precautionary measures to mitigate credit risk associated with lending and borrowing.

Akinyemi, Wisdom and Qudus [6] carried out their study on the impact of capital structure on financial performance of quoted manufacturing firms in Nigeria. Panel methodology was applied to analyze the data and the results of the panel ordinary least square show that a positive statistically significant relationship exist between long term debt ratio total debt ratio and return on equity (ROE) while a positive statistically insignificant relationship between ROE (return on equity) and STD (Short term debt ratio).

Amenawo [7] examined a relationship between Capital Structure and the Performance of Quoted Companies in Nigeria. The result showed that Capital mix has a significant relationship with the earnings per share of quoted firms in Nigeria. Debt equity ratio has a significant positive impact on the return on assets of quoted companies in Nigeria and debt asset ratio has a significant inverse relationship with the return on assets of quoted companies in Nigeria. Also debt equity ratio has a significant inverse impact on the return on equity of quoted companies in Nigeria and debt asset ratio has a significant positive impact on return on equity of quoted companies in Nigeria and concluded that Quoted companies in Nigeria should invest their profits when there are good investment opportunities and pay cash dividend as soon as enough income is generated.

Mustafa and Osama [8] in their study of the impact of capital structure on the Jordanian firms' performance in the Amman stock market employed the ordinary least squares (OLS) technique in examining about 76 firms for the periods of 2001 to 2006. The findings revealed the presence of negative statistical relationship between capital structure and firm performance.

[9] examine the effect of capital structure on the financial performance of about 100 consecutive firms of Pakistan in Karachi stock exchange from 2006 and 2009. The exponential generalized regression was used in estimating relevant equation on the relationship between capital structure and the financial performance of firms. They found out that, the choice of capital structure is a critical factor in determining a firm's financial performance.

Mykhialo [10] examined the relationship between capital structure and firm

performance. Using the sample of 165 Ukrainian firms over 2001-2010 and applying the multiple regression techniques, found that the relationship existing between the leverage and firm performance was actually negative.

Ahmed [11] investigated the impact of capital structure on about 17 non-financial firms' performance listed in the Bahrain Bourse from 2009 to 2013. Using the OLS multiple regression technique, key macroeconomic variables (inflation rate, gross domestic product growth) on the financial performance variables (return on asset, return on equity, earnings per share, and dividend yield). The results indicated that capital structure had a positive and significant effect on the firms' performance (ROA).

Ogebe and Alewi [12] investigated capital structure effect on the performance of firms in Nigeria from 2000 to 2006 employing major macroeconomic measures on the performance of firms. The study employed capital structure traditional theory in order to determine the significance of macroeconomic measures and leverage on the performance of firms. The study was a comparative analysis of firms grouped into lowly and highly geared firms using the static panel analysis. The findings from the study revealed that the study conformed to the capital structure traditional theory showing a significant but negative relationship between leverage and the performance of firms.

Ishaya and Abduljelee [13] investigated capital structure and the profitability of listed companies in Nigeria using the agency cost theory. About 70 selected companies were chosen from the Nigerian stock exchange from 2000 to 2009 using the random effects, fixed effects and Hausman chi-square techniques. The result showed that debt capital was negatively related to profitability, but equity showed a direct relationship with profitability.

Muritala [14] examined capital structure optimum level through a firm can enhance its financial performance. The Pesaran and Shine unit root analysis showed that the five years annual data were non-stationary at five per cent significance level. Further findings revealed that there exist a negative association between capital structure and firms' operational performance while the panel data result revealed a positive relationship between asset tangibility, size, asset turnover, age of firm and the performance of firm. Finally, a significant but negative relationship was seen between asset tangibility and the performance of the firm (ROA).

Li-Ju and Shun [15] used pecking order theory in exploring capital structure important factors. The model of their was specified using the hierarchical regression on debt decision determinants of about 305 quoted electronic firms in Taiwan stock exchange in 2009. The findings showed that capital structure determinants were growth rate and profitability.

[16] investigated the association between capital structure and the conglomerate's profitability of financial services and consumer goods quoted firms in Nigeria stock exchange from 2000 to 2011. The association between capital structure and performance proxies was analyzed using regression and correlation estimates. The findings revealed that debt asset ratio and debt equity ratio and return on assets were insignificant except for Nestle and 7uup, also between debt asset ratio and return on equity. However, the association between all the firms' debt to equity and return on equity was significant justifying the fact that, highly geared firm are more profitable.

[17] studied capital structure effect on the performance of firms in Nigeria by employing the correlation analysis to analyze the firms' annual sample from 2007 to 2011. He found out that, the age of the firm, debt to equity, debt to capital, short term debt to total debt were positively and significantly related to return on asset and return on equity, whereas, the relationship between long term to capital and return on asset and return on equity were

2.4.2 Gap in Literature

In Nigeria, most of the studies did not use other components of capital structure. For example, Salawu [3] who studied the effect of capital structure on financial performance of selected quoted companies in Nigeria between 1990 and 2004 concentrated on short term debt. His study did not extend to other forms of financing, thus the finding could only be used in the context of short term debt financing. This means even within the scope of debt financing; only the short term aspect of the debt was covered in his study. In reality, a study on capital structure is supposed to cover both types of debt financing.

[18] used Chi-square technique to analyze their data. Chi-square is considered deficient in terms of reflecting time variant and specific characteristic issues. Studies on capital structure and performance of firms are supposed to use parametric techniques that measure both time variant and specific characteristic issues.

[7], in his study on capital structure and performance of quoted companies in Nigeria between 2011 and 2014, emphasized on debt equity and debt asset ratio. His study failed to take into consideration other proxies of capital structure such as total debt to total equity, short- term debt and long-term debt.

Additionally, [19] studied the impact of capital structure and liquidity on corporate returns of manufacturing firms between 2002 and 2006 and focused on short-term debt, long-term debt and total debt without including total debt to total equity financing. The study failed to use total debt to total equity as variable of debt financing.

Idode, Adeleke, Ogunlowore and Ashogbon [20] in their study of the influence of capital structure on profitability of banks in Nigeria for the period of 2008 to 2012 covered both debt financing and equity financing. However, they ignored short-term debt and long-term debt which constitute other important forms of financing for manufacturing companies in Nigeria.

3. METHODOLOGY

The study adopted ex-post facto design. This design is also called causal comparative Research design. When translated literally, ex-post facto means, from what has been done before. It can be described as a historical research design. Ex-post facto design was employed because it is appropriate for the purpose of achieving the objectives of the research since the study also investigates the causal relationships among the relevant variables and the data input were mainly from secondary data.

Another justification for adopting this design method is because it involves the collection and evaluation of data related to post events that are used to described causes, effects and trends that may explain present or future events.

3.1 Measurement of Variables

Table 1 presents the measurement of variables. There are two major variables involved in this study; they are dependent and independent variables. The dependent variable represents the company's performance while capital structure indices are the independent variables.

Table 1 Summary of variables used in the study and their definition

Variable Type	Variable Name	Proxy	Measurement

Dependent	**Return on Asset**	**ROA**	**Net income / Total Asset**
	Return on capital Employed	**ROCE**	**Earnings before Interest & tax / Capital Employed**
	Earnings per Share	**EPS**	**Net income-Preferred Dividends / Weighted Av. Shares outstanding**
	Net profit Margin	**NPM**	**Net Income / Total Revenue**
Independent	**Debt ratio**	**DR**	**Total Debt / Total Asset**
	Equity ratio	**EQR**	**Total Shareholders' equity / Total Asset**
	Long Debt to Total Asset	**LDTTA**	**Long term Debt / Total Asset**
	Firm Size	**FS**	**Nat.log of the total Assets**

Source: Author's computation 2020

Justification for Using the Above Ratios

i. Return on Assets

ROA is an indicator of how profitable a company is relative to its total assets. ROA gives a manager or investor an idea as to how efficient a company's management is at using its assets to generate earnings

ii. Return on capital employed

ROCE shows how well a company utilizes its assets to produce profit and is commonly used by investors to determine whether a company is suitable to invest in or not. It can be used in assessing a company's profitability and capital efficiency. In other words, the ratio can help to understand how well a company is generating profits from its capital

iii. Net profit margin

NPM helps investors assess if a company's management is generating enough profit from its sales and whether operating costs and overhead costs are being contained. It the percentage of revenue left after all expenses have been deducted from sales. The measurement reveals the amount of profit that a business can extract from its total sales.

iv. Earnings per share

EPS is an important financial measure, which indicates the profitability of a company. It is considered to be a significant financial parameter as it helps to gauge a company's financial health. Higher EPS reflects greater profitability from the company and its overall ventures.

v. The debt ratio

DR measures the amount of leverage used by a company in terms of total debt to total assets. The *debt ratio* shows a company's ability to pay off its liabilities with its assets. In other words, this shows how many assets the company must sell in order to pay off all of its liabilities.

vi. The Equity Ratio

ER is a good indicator of the level of leverage used by a company. The Equity Ratio measures the proportion of the total assets that are financed by stockholders, as opposed to creditors. The *equity ratio* is an investment leverage or solvency *ratio* that measures the amount of assets that are financed by owners' investments by comparing the total *equity* in the company to the total assets.

vii. Long Term Debt to Total Asset Ratio

LTDTA is the ratio that represents the financial position of the company and the company's ability to meet all its financial requirements. It shows the percentage of a company's assets that are financed with loans and other financial obligations that last over a year.

3.2 Model Specification

This study uses annual audited reports and accounts of the sampled food and beverages manufacturing firms obtained from Nigerian stock exchange fact book covering the period of 2012 to 2017. In the extant literature, there have been several models in the area of capital structure and firms performance. However, the model specified by Chandrika and Rabindra [21] is hereby followed after with a slight modification. The model is specified thus:

$FP_{it} = f(CS_{it})$ …… (3.1)

$FP_{it} = f(DR_{iit}EQR_{it}\ LDTTA_{it}FS_{i\,it})$ …… (3.2)

Where:

FP = *Financial Performance of food and beverages industries (ROA,NPM, ROCE, EPS)*
CS =*Capital structure*
DR =*debt ratio*
EQR =*equity ratio*
LDTTA =*long debt to total assets*
FS =*Firm size*

Equation 3.2 can be restated in econometric form as:

$ROA_{it}=\beta_0 +\beta_1 DRit_{it}+\beta_2 EQR_{it}+\beta_3 LDTTA_{it}+ \beta_4 FS_{it}+\mu_{it}$ …… (3.3)

$EPS_{it}=\beta_0 +\beta_1 DRit_{it}+\beta_2 EQR_{it}+\beta_3 LDTTA_{it}+ \beta_4 FS_{it}+\mu_{it}$ …… (3.4)

$ROCE_{it}=\beta_0 +\beta_1 DRit_{it}+\beta_2 EQR_{it}+\beta_3 LDTTA_{it}+ \beta_4 FS_{it}+\mu_{it}$ …… (3.5)

$NPM_{it}=\beta_0 +\beta_1 DRit_{it}+\beta_2 EQR_{it}+\beta_3 LDTTA_{it}+ \beta_4 FS_{it}+\mu_{it}$ …… (3.6)

Where;

ROA is the return on assets
ROCE is the return on capital employed
EPS is the Earning per shares
NPM is Net profit margin
DR is the debt ratio
EQR is the equity ratio
LDTTA is the long debt to total assets
FS is the Firm size
β_0 *is the Constant coefficient*
β_1- β_2 *are the regression coefficients for measuring independent variables*
it represents firm i at time t
μ is the disturbance term signifying other variables not captured in the study

3.3 A Priori Expectation

The a priori expectations of the coefficients are indicated to be positive, which implies that capital structure is supposed to have a positive impact on performance of food and beverages manufacturing firms in Nigeria. It is stated as $\beta_0 < 0; \beta_1 - \beta_5 > 0$

4. DATA ANALYSIS, RESULTS AND DISCUSSION

Descriptive Analysis

As seen in Table 2, the mean, median, minimum, maximum, standard deviation, skewness, kurtosis and the Jarque-Bera statistics are presented. It is evident that a long term debt to total assets has a minimum value of 0.03 and a maximum of 0.63 having a mean value of 0.19 and a median of 0.16. This indicates that the performance of the firms in terms of long term debt to total asset is on average of 0.19. The standard deviation of 0.11 shows that this series is not dispersed from the mean value and as shown in the value of skewness, the series is positively skewed, hence asymmetric. In addition, as presented by the kurtosis and jarque-bera statistics, the series is not normally distributed.

It can also be seen from the table that equity has a minimum of -0.06 and a maximum of approximately 0.63 having a mean value of 0.35 and a median of 0.35. This implies that the performance of the sampled firms in terms of equity is on average of 0.35. The standard deviation of approximately 0.13 indicates that the value deviates from the mean value and as shown in the value of skewness. The series is positively skewed hence asymmetric.

It can equally be seen that debt has a minimum of 0.37 and a maximum of 1.06 having a mean of 0.65 approximately and a median of 0.65. The standard deviation of 0.13 shows a slight dispersion from the mean value and as shown in the value of the skewness, the series is positively skewed.

The results also depict that Size on the average have a mean of 1.29. The standard deviation of 1.13 has a slight dispersion from the mean value of the skewness, the series is positively skewed.

The results further depict that on the average the size of the firm in Nigeria accounted for 1% in the Return on Asset (ROA). The standard deviation of 1.13 has a slight dispersion from the mean value of the skewness; the series is positively skewed hence asymmetric.

The table indicates also that ROA has a minimum of approximately -0.40 and a maximum of 0.29 having a mean of 0.08 approximately and a median of 0.08. The standard deviation of 0.10 shows that this series is not dispersed from the mean value and as shown in the value of skewness, the series is positively skewed, hence asymmetric. In addition, as presented by the kurtosis and jarque-bera statistics, the series is not normally distributed

Table 2
Descriptive Analysis

	ROA	ROCE	NPM	DR	EPS	EQR	LTDTTA	SIZE
Mean	0.078	0.225	0.059	0.650	1.785	0.353	0.190	1.29E+08
Median	0.082	0.211	0.081	0.654	0.900	0.353	0.164	90882260
Maximum	0.238	0.698	0.194	1.062	9.640	0.626	0.636	4.83E+08
Minimum	-0.398	-0.097	-0.390	0.373	-1.340	-0.062	0.034	3649762.
Std. Dev.	0.096	0.174	0.100	0.125	2.254	0.127	0.116	1.13E+08
Skewness	-2.023	0.495	-2.167	0.393	1.437	-0.403	1.639	1.296629
Kurtosis	11.38	2.813	9.371	3.834	4.695	3.759	6.750	3.794966
Jarque-Bera	216.5	2.5	148.4	3.2	27.8	3.072	62.05	18.39239
Probability	0.000	0.280	0.000	0.193	0.000	0.215	0.000	0.000
Sum	4.694	13.552	3.579	39.01	107.1	21.209	11.44	7.72E+09
Sum Sq. Dev.	0.548	1.794	0.595	0.927	299.85	0.955	0.800	7.58E+17

Observations	60	60	60	60	60	60	60	60

Source: Results from E-views 9

Correlation Analysis

This section looks at the correlation among capital structure indicators/proxies such as Debt, equity, long term debt to total asset and size of the firm. The correlation analysis was employed to test whether there is a significant relationship between the dependent variables, independent variables and control variables. The rule of thumb for correlation between two variables ranges between 0 and 0.3 which implies that a weak relationship exists between the variables.

Also, when the correlation ranges between 0.4 and 0.9, it can be said that a strong relationship between the variables exists.

In table 3, ROCE is strongly and positively correlated with ROA, positively and weakly correlated with EPS, NPM and EQR and negatively correlated with LTDTTA, DR and SIZE. EPS is strongly and positively correlated with size, positively and weakly correlated with EQR, LTDTTA, NPM and ROA but negatively correlated with DR. ROA is positively and weakly correlated with NPM, EQR, SIZE but negative correlation exist between ROA, LTDTTA and DR. NPM is highly and positively correlated with EQR, however weakly and positively correlated with LTDTTA, DR and SIZE. LTDTTA is positively and weakly correlated with DR, SIZE but negatively correlated with EQR. DR is negatively correlated with EQR and SIZE. EQR is positively and weakly correlated with SIZE.

Table 3 Correlation Matrix

	ROCE	EPS	ROA	NPM	LTDTTA	DR	EQR	SIZE
ROCE	1.000							
EPS	0.1175	1.000						
ROA	0.6359	0.2260	1.000					
NPM	0.3775	0.3526	0.3986	1.000				
LTDTTA	-0.3112	0.2644	-0.2888	0.1159	1.000			
DR	-0.0828	-0.1521	-0.2855	0.0547	0.0835	1.000		
EQR	0.0728	0.2234	0.1817	0.6560	-0.0212	-0.2692	1.000	
SIZE	-0.1119	0.5478	0.1204	0.1747	0.0247	-0.0054	0.0729	1.000

Source: Results from E-views 9

Test of Hypotheses

Panel Data Regression Analysis

Data panel is a combination of data from cross section and time series. Regressions using panel data referred to the panel data regression model.

Capital structure and performance (ROA) of quoted food and beverages industries

From table 4, the constant though not important in the study was positive. The results also show that size of the firm and equity ratio is positively insignificant to financial performance of firms (ROA). Debt ratio and long term debt to total asset employed has a negative impact on the performance of food and beverages industries as return on assets declines by approximately by 18% and 23% respectively. This implies that the selected food and beverages industries under investigation concentrated much on financing its operations with debt than equity or retained earnings. However, the resultant effect of financing with debt was not encouraging as there was considerable shortfall in the returns

of assets (ROA) of the firms. The co-efficient of determination, adjusted R-Squared value of 0.11 indicates that about 11% in the variation of returns on asset (ROA) is explained by debt finance ratio, size of the firm, long term debt to total asset and equity finance ratio.

Table 4: Regression results
Dependent Variable - ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.050	0.225	0.225	0.822
LOG(SIZE)	0.008	0.011	0.739	0.462
DR	-0.178	0.098	-1.814	0.075
LTDTTA	-0.228	0.102	-2.232	0.029
EQR	0.076	0.097	0.781	0.437
R-squared	0.172			
Adjusted R-squared	0.112			
F-Statistics	2.867			
Durbin-Watson stat	1.276			
Prob (F-statistics)	0.031			

Source: Results from E-views 9

Capital structure and performance (ROCE) of quoted food and beverages industries

From table 5, financial performance is measured as Return on capital employed (ROCE) and the outcome of panel regression shows that all the explanatory variables (DR, EQR and SIZE) are negatively insignificant to return on capital employed (ROCE). The positive impact of Equity capital on ROCE was not significant. The Adjusted R-squared could only account for approximately 5%. This shows that the explanatory variables employed are not enough to impact greatly on ROCE of food and beverages firms in Nigeria. It also implies that there are other variables that could significantly influence ROCE better.

Table 5: Regression results
Dependent Variable - ROCE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.634	0.422	1.501	0.139
DR	-0.060	0.184	-0.326	0.745
LTDTTA	-0.443	0.191	-2.314	0.024
EQR	0.095	0.182	0.523	0.602
LOG(SIZE)	-0.017	0.022	-0.784	0.435
R-squared	0.112			
Adjusted R-squared	0.048			
F-Statistics	1.749			
Durbin-Watson stat	0.606			
Prob (F-statistics)	0.152			

Source: Results from E-views 9

Capital structure and performance (EPS) of quoted food and beverages industries
Earnings per share (EPS) from table 6, is positively and significantly impacted by the combined input of long term debt and size of the firm, however debt and equity capital have no significant effect on the financial performance (EPS) of food and beverages manufacturing industries. The results also indicate that food and beverages manufacturing industries in Nigeria gives preference to long term debt as working capital in increasing their earnings per share without inclusion of short term debt to fund its operations. The Adjusted R-Squared of 0.27 reported that all the explanatory variables could only account for 27% telling us that there are still other variables that could engender increase in EPS of food and beverages industries in Nigeria.

Table 6: Regression results
Dependent Variable - EPS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16.332	4.769	-3.424	0.001
DR	-2.153	2.079	-1.035	0.304
LTDTTA	4.553	2.166	2.101	0.040
EQR	2.337	2.063	1.133	0.262
LOG(SIZE)	0.976	0.250	3.892	0.000
R-squared	0.322			
Adjusted R-squared	0.273			
F-Statistics	6.554			
Durbin-Watson stat	0.537			
Prob (F-statistics)	0.000			

Source: Results from E-views 9

Capital structure and performance (NPM) of quoted food and beverages industries
The output from table 7 shows that debt and equity have positive and significant impact on net profit margin (NPM) of food and beverages industries in Nigeria. Both capitals utilized contributed hugely to net profit margin of the firms by 19% and 56% respectively. On the contrary, firms' size and long term debt though have a positive influence but insignificant variable to measure the increase or decline in the net profit margin of food and beverages industries in Nigeria. For long term debt to be insignificant, it implies that the combination of both long and short term debt that actually accounted for 19% increase was a point of focus for the finance manager and firms at large in an attempt to improve the net profit margin of the firms. Also, about 47% in variation of NPM is explained by all the explanatory variables.

Table 7: Regression results
Dependent Variable - NPM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.416	0.181	-2.291	0.025

DR	0.192	0.079	2.436	0.018
ER	0.562	0.078	7.161	0.000
LOG(SIZE)	0.007	0.009	0.769	0.445
LTDTTA	0.089	0.082	1.087	0.281
R-squared	0.505			
Adjusted R-squared	0.469			
F-Statistics	14.06			
Durbin-Watson stat	0.913			
Prob (F-statistics)	0.000			

Source: Results from E-views

CONCLUSION

Based on the findings of the study, the study concluded as follows:

1. Debt finance impacted financial performance of food and beverages firms in Nigeria negatively.
2. Long term debt was significant but impacted negatively on return on capital employed (ROCE)
3. Long term debt is also positive and contributed significantly to earnings per share (EPS)
4. EPS is greatly impacted positively as firms increases in size of its operations
5. Input of debt positively and significantly increase net profit margin (NPM)
6. Equity raised have significant impact on net profit margin (NPM)

RECOMMENDATION

Based on the findings of this study, the following recommendations are made:

i. Debt with lower cost of borrowing should be embraced in the capital structure of food and beverages in order to minimize the negative impacts of huge debts employed on firm's value
ii. Long term debts should be preferred when sourcing for finance for the purpose of high tax savings benefits.
iii. Priority should be placed by the firms on increase in share prices than increase in accounting profits.

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APPENDIX 1

COMPANY	YEAR	EPS	NPM	ROCE	ROA	DR	LTDTTA	EQR	SIZE
CADBURY NIG PLC	2012	1.07	0.103	0.231	0.083	0.501	0.080	0.499	40,156,508
	2013	1.92	0.153	0.515	0.140	0.444	0.117	0.556	43,172,624
	2014	1.06	0.070	0.145	0.140	0.557	0.130	0.443	28,811,286
	2015	0.61	0.041	0.094	0.041	0.568	0.158	0.432	28,417,005
	2016	-0.16	-0.009	(0.036)	(0.010)	0.611	0.159	0.389	28,409,000
	2017	0.16	0.009	0.022	0.011	0.587	0.146	0.413	28,423,122

FLOUR MILL	2012	3.08	0.030	0.077	0.039	0.649	0.311	0.351	232,578,054
	2013	2.91	0.025	0.067	0.033	0.701	0.292	0.299	280,137,993
	2014	1.93	0.016	0.049	0.031	0.719	0.286	0.281	297,249,445
	2015	3.47	0.027	0.047	0.019	0.745	0.222	0.255	342,849,399
	2016	5.57	0.042	0.071	0.042	0.723	0.193	0.314	345,348,326
	2017	3.03	0.016	0.060	0.184	0.788	0.150	0.213	482,603,257
UNILEVER	2012	1.48	0.100	0.584	0.153	0.725	0.109	0.275	3,649,762
	2013	1.27	0.080	0.443	0.110	0.780	0.136	0.220	4,375,411
	2014	0.64	0.043	0.200	0.053	0.836	0.151	0.164	45,736,255
	2015	0.32	0.020	0.114	0.024	0.840	0.149	0.160	50,172,484
	2016	0.81	0.044	0.216	0.042	0.839	0.101	0.161	72,491,309
	2017	1.78	0.082	0.133	0.062	0.373	0.070	0.627	121,084,365
DANGOTE SUGAR	2012	0.90	0.101	0.326	0.129	0.672	0.174	0.557	83,051,450
	2013	0.90	0.105	0.306	(0.110)	0.725	0.184	0.565	83,159,878
	2014	0.97	0.122	0.265	0.125	0.825	0.119	0.554	92,801,302
	2015	0.96	0.110	0.261	0.112	1.062	0.050	0.565	102,624,834
	2016	1.20	0.084	0.269	0.134	0.694	0.094	0.371	172,169,458
	2017	3.31	0.194	0.539	0.117	0.710	0.035	0.475	195,080,449
GUINNESS NIG. PLC	2012	9.64	0.112	0.335	0.134	0.636	0.636	0.364	106,009,667
	2013	7.93	0.090	0.244	0.098	0.620	0.246	0.380	121,060,621
	2014	6.36	0.087	0.133	0.072	0.659	0.326	0.341	132,328,273
	2015	5.18	0.065	0.142	0.064	0.605	0.227	0.395	122,246,632
	2016	-1.34	-0.019	(0.034)	(0.015)	0.696	0.206	0.304	136.992,444
	2017	1.28	0.015	0.032	0.0132	0.706	0.270	0.294	146,038,216
INT'L BREWERIES	2012	-0.67	-0.170	0.164	(0.118)	0.889	0.179	0.111	14,288,312
	2013	0.71	0.144	0.246	0.109	0.593	0.252	0.407	23,036,762
	2014	0.64	0.113	0.221	0.161	0.538	0.267	0.462	24,370,540
	2015	0.59	0.094	0.139	0.093	0.597	0.446	0.403	30,171,590
	2016	0.81	0.114	0.207	0.079	0.582	0.109	0.418	33,482,106
	2017	0.31	0.031	0.153	0.023	0.691	0.112	0.309	44,962,735
DANGOTE FLOUR	2012	-0.55	-0.038	(0.097)	(0.029)	0.673	0.191	0.328	77,449,018
	2013	-0.15	-0.240	0.342	0.130	0.435	0.073	0.275	65,877,662
	2014	-0.12	-0.148	0.273	0.125	0.446	0.066	0.175	54,801,488
	2015	-0.25	-0.390	0.261	0.109	0.435	0.050	(0.062)	49,354,982
	2016	2.12	0.099	0.508	0.081	0.629	0.064	0.306	78,979,982
	2017	2.91	0.120	0.526	0.204	0.525	0.034	0.290	129,382,925
NIGERIAN BREWRIES	2012	5.03	0.150	0.333	0.150	0.632	0.289	0.368	253,633,629
	2013	5.70	0.160	0.408	0.170	0.555	0.159	0.445	252,759,633
	2014	5.62	0.159	0.261	0.122	0.498	0.181	0.492	349,229,163
	2015	4.82	0.129	0.252	0.107	0.516	0.123	0.452	356,218,676
	2016	3.58	0.126	0.178	0.077	0.548	0.155	0.484	367,146,468
	2017	4.14	0.090	0.146	0.086	0.534	0.125	0.434	382,228,093
NESTLE PLC	2012	0.62	0.190	0.393	0.238	0.616	0.333	0.384	88,963,218
	2013	0.55	0.167	0.347	0.206	0.625	0.318	0.375	108,207,480
	2014	0.28	0.155	0.398	0.210	0.661	0.240	0.339	106,062,067
	2015	0.29	0.150	0.493	0.200	0.682	0.180	0.319	119,215,053
	2016	0.10	0.043	0.444	0.047	0.818	0.104	0.182	169,585,932
	2017	0.42	0.138	0.698	0.230	0.694	0.152	0.306	146,804,128

HONEYWELL FLOUR	2012	0.33	0.070	0.140	0.056	0.645	0.190	0.355	47,930,278
	2013	0.34	0.062	0.137	0.049	0.665	0.169	0.355	55,437,478
	2014	0.42	0.060	0.118	0.053	0.677	0.238	0.323	63,830,439
	2015	0.14	0.022	0.040	0.016	0.701	0.232	0.299	67,943,444
	2016	-0.38	-0.059	(0.090)	(0.398)	0.785	0.581	0.215	76,046,576
	2017	0.54	0.080	0.063	0.038	0.537	0.305	0.463	113,151,715