

## Equity and Debt Financing on the Profitability of Cement Industry in Nigeria



Meshack Ashibudike Anyakwu<sup>1</sup>, Saratu L. Jim-Suleiman<sup>2</sup>, Okwoli, A.A<sup>3</sup>

<sup>1,2 & 3</sup> Department of Accounting, Faculty of Management Sciences University of Jos, Nigeria

**ABSTRACT:** This study examined equity and debt financing on the profitability of the cement industry in Nigeria. Data were collected 2010 to 2020 for 3 cement firms. The results revealed that total debt (TDTA) has a positive effect on return on assets (ROA), equity (DER) has a negative effect on return on Asset (ROA) and the control variables; sales growth (SG) has a negative effect, while firm size (FMSZ) is positive. This study, therefore recommends that cement industry owners should diversify their sources of financing their businesses by focusing more on debts so as to save their costs and reduce their risk in the investment. Industry owners should look outside the box by employing other sources of financing their businesses like debentures, bonds and so on, other than absolute dependence on equity.

**KEYWORDS:** Profitability, capital structure, debt, equity, panel data, pooled regression

### INTRODUCTION

Profitability is one of the primary reasons for the existence and operation of a business enterprise. It is the ability of a given investment to earn a return from its use (Ryan, 2007). Profit is the difference between the revenue and expenses and expired costs of a particular period (Okwoli, 1998). This implies that, it is the maximum amount, which can be spent during a period if there is to be an expectation of maintaining intact the capital value of prospective receipts (in money terms).

No trading firm can survive; or government can earn income through taxation; or can a society guarantee employment; or can there be any meaningful growth of an industry and economy; or can an industry discharge its social responsibilities effectively, without making a profit, the cement company inclusive. Therefore, it is appropriate to state that profitability is the pivot element of a business sustainability. It is obvious that Cement companies struggle with the best combination of funding sources to enhance profitability.

A firm's capital structure decisions are affected by such variables as its philosophy on borrowing, degree of leverage, cost of capital and income tax savings. Debt decisions refer to the firm's strategy regarding the use of debts as a means of debt financing, which usually centres around the firm's debt capacity. Equity, on the other hand, is the summation of issued capital shares and retained earnings. The choice of optimal capital structure is one of the puzzling issues in corporate finance that has not been fully resolved. Many theories have been advanced, but the researchers are still not able to utilise the existing theories to explain capital structure choices in practice, or prescribe what constitutes an optimal capital structure. Financing is represented in the balance sheet by two important types of capital: equity and debt funding, otherwise known as the capital structure.

Prior studies have shown that debt financing has negative and positive effects on the firm value; it depends upon the investment opportunities that firms avail in the future (Stulz, 1990). Eriotis, Frangouli and Ventoura (2011) studied profit margin and capital structure, the study uses panel data for various industries, covering 1995-96, concluded that firms using more debt financing are earning less profit than firms with equity finance in times of recession. Debt finance causes the payment of interest, which reduces the profit (Eriotis, Frangouli & Ventuora, 2011). Contradictory results show that companies using only equity financing have weak financial position and low credit rating (Coyle, 2000). This reveals that, negative correlation exists between equity financing and profitability (Efobi & Uremadu, 2009). Of all the aspects of capital investment decisions, capital structure decision is the vital one, since the profitability of an enterprise is directly affected by such decision.

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## LITERATURE REVIEW

### Conceptual Review

**Capital structure** refers to the firm's financial framework, which consists of the debt and equity used to finance the firm. Capital structure is one of the popular topics among scholars in the finance field. The ability of the industry to carry out its social responsibility is tightly related to capital structure. Therefore, this derivation is an essential fact that we cannot neglect. Capital structure in financial terms means how a firm finances its assets through the combination of equity, debt, or hybrid securities (Saeed & Mahmoodi, 2011). In short, capital structure is a mixture of a company's obligations, shared equity and preferred equity. Capital structure is essential for how a firm finances its overall operations and growth by using different sources of funds.

**Debt:** Business enterprises use debt in their businesses because it can increase their operations' volume and increase the average return on their equity funds. The use of debt will have this effect only if the rate of return on the investment is greater than the rate of return on the debt, Watkins (2002). The borrowing firm takes a chance to use debt to elevate the firm to a more practical level by increasing the turnover and, therefore, increasing the profits.

Debt instruments are assets that require a fixed payment to the holder, usually with interest. Stocks are securities that are a claim on the earnings and assets of a corporation (Mishkin, 1998). Some of the common types of debt instruments are:

1. **Debentures:** Debentures are not backed by any security
2. **Bonds:** Bonds on the other hand are issued generally by the government, central bank or large companies and are backed by a security.
3. **Mortgage:** A mortgage is a loan against a residential property.

Debt is money that an individual borrows to run a business. Debt refers to the borrowing of funds to finance a purchase, acquisition or expansion. For companies and corporations, debt often involves selling notes, bonds, mortgages, or other debt instruments. The individuals and financial institutions which provide the debt financing become creditors. Since debt involves borrowed funds, a debt must be repaid, typically in instalments and with interest. The interest compensated on debt financing is controlled by the borrower's creditworthiness, the intended use of the funds, and the current financial climate. Businesses and corporations find debt financing attractive because the interest paid is tax-deductible.

The financial leverage chance will arise if the rate of interest charged to the firm is lower than the internal rate of return (IRR) for the company, in which case the firm will be making enough to pay the interest charged and the principal repayment and retain the surplus for the shareholders. On the other hand, the firm may experience a financial leverage risk that the returns of the business are not enough to cover the interest charged. It occurs when the rate of interest exceeds the internal rate of return of the company. To avoid liquidation, the firm will have to use part of the shareholders' funds to repay the interest and principal. It could eventually lead to erosion of equity and the collapse of the business. The simplest way to assess whether borrowing has increased the return on equity is to contrast the return on the investment with the loan interest rate. There is positive leverage when the return is higher than the loan interest rate (the return on equity increases as more is hired, Rowland (2002). Loan capital may be obtained from a bank or finance company as long term loans or debt-equity investors in the form of debentures or preferred stock (preference shares) and are usually secured by a fixed and floating charge on the company's assets.

There are many variables in a capital structure choice and debt maturity structure that will affect a company's profitability. Debt maturity will influence a company's option in investing. In this case, examining the impact of capital structure's variables based on the company's performance will present proof for a company's performance due to the effect of capital structure (Tian & Zeitun, 2007). A study by Abor (2005) on the influence of capital structure on the profitability of listed companies on the Ghana Stock Exchange during five years. Found out a significant positive interrelationship between short-term debt and ROE, revealing that firms that earn a lot use more short-term debt to finance their business. In other words, short-term debt is an essential source of financing in favour of Ghanaian companies, representing 85 per cent of total debt financing. Yet, the results showed a negative relationship between long-term debt and ROE. The regression output led to a positive relationship between Debt and ROE which measure the relationship between total debt and profitability. It indicates that firms that earn a lot depend on debt as their key financing option. The opposite of debt financing is equity financing.

Some studies have shown that debt harms firm's profitability. For instance, Fama and French (1998) argue that the use of excessive debt creates agency problems among shareholders and creditors, resulting in a negative relationship between leverage and profitability. Majumdar and Chhibber (1999) found in their Indian study that leverage harms performance. Gleason, Marthur and Mathur, (2000) support a negative impact of leverage on the firm's profitability. In a Polish study, Hammes (1998) also found a negative

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relationship between debt and profitability. In another study, Hammes (2003) examined the relation between capital structure and performance by comparing Polish and Hungarian firms to a large sample of firms in industrialised countries. The researcher used panel data analysis to investigate the relationship between total debt and performance and between different sources of debt, namely, bank loans and trade credits and firms' performance measured by profitability. The results showed a significant and negative effect for most countries. Authors have discovered that bank loans or trade credit are not of considerable importance; what matters is debt in general.

ii. **Equity:** Equity financing could mean money obtained from investors in exchange for an ownership share in the business. An equity investment generally refers to the buying and holding of shares of stock on a stock market by individuals and firms in anticipation of income from dividends and capital gains as the value of the stock rises. It may also refer to acquiring equity (ownership) participation in a private (unlisted) company or a start-up investment in infant companies. It also refers to venture capital investment, generally understood as higher risk than investment in listed going-concern situations. It is called risk capital because investors assume the risk of losing their money if the business fails. It does not have to be reimbursed with interest like a loan. It means that an entrepreneur must give up some ownership of the company to outside investors.

From the perspective of accounting and finance, equity is the residual claim or interest of the most junior class of investors in assets; after all, liabilities are compensated. If penalty exceeds assets, negative equity exists. The components of equity include the following:

1. **Common stock:** Common stock is a security that represents ownership in a corporation. Holders of common stock elect the board of directors and vote on corporate policies. This form of equity ownership typically yields higher rates of return long term.
2. **Preferred stock:** Preferred stock is often described as a hybrid security that has features of both common stock and bonds. It combines the stable and consistent income payments of bonds with the equity ownership advantages of common stock, including the potential for the shares to rise in value over time.
3. **Contributed surplus:** The contributed surplus is the amount of capital from the issuance of shares above the par value. Also known as additional paid-in capital, the surplus is recorded in shareholders' equity on the balance sheet.
4. **Retained earnings:** Retained earnings are a portion of a company's profit that is held or retained from net income at the end of a reporting period and saved for future use as shareholder's equity. Retained earnings are also the key component of shareholder's equity that helps a company determine its book value.
5. **Treasury stock:** Treasury stock is a contra equity account recorded in the shareholder's equity section of the balance sheet. Because treasury stock represents the number of shares repurchased from the open market, it reduces shareholder's equity by the amount paid for the stock.

Businesses can be considered to be, for accounting purposes, sums of liabilities and assets; this is the accounting equation. After liabilities have been accounted for, the positive remainder is deemed the owner's interest in the business. This creates a penalty on the company in the shape of capital as it is a separate entity from its owners.

Equity capital is the owners' interest in the enterprise's assets after deducting all its liabilities. It is an important element that appears on the statement of financial position of an organisation.

### Profitability

Profitability is a situation in which an entity is generating a profit. Profitability arises when the aggregate amount of revenue is greater than the aggregate amount of expenses in a reporting period. Profitability can be achieved in the short term through the sale of assets that garner immediate gains. Profitability is the primary goal of all business ventures. Without profitability, the business will not survive in the long run. So, measuring current and past profitability and projecting future profitability is very important. Profitability is basically viewed from two perspectives: Accountant's view and the Economist's view.

The net profit margin, or simply net margin, measures how much net income or profit is generated as a percentage of revenue. It is the ratio of net profits to revenues for a company or business segment. Net profit margin is typically expressed as a percentage but can also be signified in decimal form.

Return on Equity measures the benefits that the shareholders enjoy from their investments in the firm. It is also stated as return on average common equity, return on net worth, return on ordinary shareholders' funds, and measures the rate of return on the joint-stock owners' ownership interest (equity).

Earnings per share (EPS) is evaluated as a company's profit divided by the outstanding shares of its common stock. The resulting number serves as an indicator of a company's profitability.

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Return on Assets measures the firm's effectiveness in generating profits, that is, the -return achieved on a company's total assets (Firer et al., 2012). The return is the attributable profit (Profit after tax, minority interests and preference dividends, attributable to ordinary shareholders).

The dividend Coverage ratio is a financial metric that measures the number of times a company can pay dividends to its shareholders. The dividend coverage ratio is the company's net income separated by the compensation paid to shareholders.

### THEORETICAL REVIEW

#### The Theory of Capital Structure

Suppose there have been areas where Finance Discipline has engaged the most significant attention and caused the highest argument. In that case, it is the theory of Capital Structure and leverage and how they affect organizational performance. The Capital Structure and its effect on profitability can be traced back to David Durand (1959), who suggested two approaches to Capital Structure, namely Net Income Approach and Operating Income Approach as well as traditional approach.

Therefore, there are many approaches to capital theory, which discuss it in many different ways. It is referred to how a firm mixes debt and equity to finance itself, or in other words, it is concerned about combinations of funds in the form of debt and equity. Therefore, there is still a challenging debate as to whether an optimal Capital Structure exist, and how it affects the profitability of the cement industry.

Considering supporters of the capital structure theory, Modigliani and Miller (1958) would always be counted fundamental in this direction. Taking Modigliani and Miller (1958) standpoint to its extreme, it could be argued that a company could have a capital structure consisting of 100% debt and that will still not in any way affect the value of the company. Furthermore, Modigliani and Miller (1958) also purposed that the expected ROE is an increasing function of the firm's leverage, meaning that higher leverage should yield a higher return on a company's equity. However, Modigliani and Miller (1958) admitted that these propositions were only valid given certain theoretical environmental conditions, namely a so called "ideal capital market". An ideal capital market, according to (Gansuwan & Önel, 2012), relies in short form on the existence of the following five assumptions: 1. Capital markets are frictionless: No transaction cost or taxes. No costs associated with bankruptcy. 2.

#### Empirical Review

The result is in line with the findings of Abbasali (2012) who examined the relationship between capital structure and firm performance, where multiple regression model was applied to determine the relationship between independent variables of debt ratios against dependent variables of return on asset (ROA) and return on equity (ROE). The findings of the review indicated a negative relationship between debt ratio and financial performance.

Goyal (2013); 'Impact of Capital Structure on Performance of Listed Public Sector Banks in India'. The study sought to examine the impact of capital structure on the Performance of Listed Public Sector Banks in India. The study adopted a quantitative technique and used secondary data from all banks listed in the National stock exchange for a period of 5years from 2008- 2012. Data were collected from the annual financial statements of the selected banks documented on the National stock exchange; and analyzed using descriptive statistics, correlation matrix and regression models. The findings showed that the study validated a solid positive dependence of short-term debt to the capital with all profitability measures of ROA, ROE and EPS. In contrast, long term debt to capital and total debt to capital had a negative relationship with return on assets (ROA), Return On Equity (ROE) and Earning Per Share (EPS). The study concluded that there exists a positive relationship between short term debt and the profitability of Indian banks. It recommended that the study be extended by adding more banks or by conducting a survey of the global level with the inclusion of all banks around the world. Contribution to knowledge is seen from the findings of this study that the study validated a robust positive dependence of short-term debt to the capital with all profitability measures of ROA, ROE and EPS, while long term debt to capital and total debt to capital had a negative relationship with return on assets (ROA), Return On Equity (ROE) and Earning Per Share (EPS). The study is similar to this study as both studies used the constructs of ROA and ROE to determine the dependent variable, profitability.

Kipesha and Moshi (2014); 'Effects of Capital Structure and Firm performance: Evidence from commercial banks in Tanzania'. The study sought to assess the impact of capital structure on bank performance in Tanzania. The study adopted panel data and used secondary data on a sample of 38 banks operating in the country listed on the Tanzanian stock exchange for five years, from 2007-2011. Data were collected from the financial report of the selected banks documented in the Tanzanian Stock Exchange. The study used a fixed effect regression model to estimate the relationship between firm leverage and firm performance. Their findings indicated a presence of a significant negative relationship between total debt to equity and long-term debt to equity with bank cost efficiency

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and return on equity, which implies the existence of a negative tradeoff between firm leverage and firm performance. The study concludes that banks in Tanzania prefer to use more short-term debts in the form of deposits other than commercial debts; hence they still have a chance to excel as the debts to asset ratio was found to have a significant positive impact on return on equity. It recommended that the management of the commercial banks in Tanzania have a chance of using commercial debts to expand their services to rural areas and other areas with an unbanked population. Its contribution to knowledge is seen from the findings indicated a presence of a significant negative relationship between total debt to equity and long-term debt to equity with bank cost efficiency and return on equity, something which implies the existence of negative trade-off between firm leverage and firm performance. This empirical study is similar to this study because both of them have debt and equity as part of their independent variables pushing on their individualistic dependent variables.

Chechet and Olayowola (2014); 'Capital Structure and Profitability of Nigerian Quoted Firms: The Agency cost theory perspective'. The study sought to examine the Capital Structure and Profitability of Nigerian Quoted Firms: The Agency Cost Theory Perspective targeted to establish the relationship between capital structure and profitability of firms. The study adopted panel data methodology and used secondary data of a sample of 70 firms listed on the Nigerian Stock Exchange, NSE, was selected for ten years: 2000-2009. Data were collected from the annual financial reports of the companies. Multiple regression analysis was used where Profitability for a given period was the dependent variable, and the independent variables were debt ratio for the period and equity ratio for the period.

The findings showed a significant positive correlation of 5 % between profitability and equity and a negative correlation of 1 % between profitability and debt ratio. Therefore, the study concluded that a higher proportion of debt in capital structure hurts the firm profitability, and equity financing positively affects the profitability of a firm's profits though not significantly.

It recommended that the management (i) experiencing agency conflicts and wishing to raise funds for operations or expansions, debt ratio (higher) should not be given priority. A suitable and correct combination of equity and debt must be ensured, with equity given priority over debt. (ii) In raising finance, firms should strive and ensure that they are wholly financed by equity, but if impossible, very little proportion should be debt. No firm should rely only on the issue of debt financing in structuring their capital for profitability. Should that be done, it results in worsening the performance. The contribution to knowledge is seen in the findings of this study that a significant positive correlation of 5 % between profitability and equity and a negative correlation of 1% between profitability and debt ratio should be vigorously pursued.

### Gap

The debate on the effects of capital structure on profitability of the cement industry has remained inconclusive. Studies conducted in this area both in Nigeria and in developed economies show conflicting results.

However, with regards to other industries in Nigeria, a few scientific and detailed studies have been undertaken by different researchers and institutions. After going through various studies conducted by way of research articles, journals, magazines, PHD theses and various books, yet there is a gap where the analysis of capital structure must be found out. Unfortunately, the cement industry has not been able to draw the attention of researchers to any noticeable event.

## METHODOLOGY

### Research Design and Data

This study employed the descriptive and causal research designs. Descriptive research design that shows characteristics of the data while causal design is applied to determine the effect of the independent variables on the dependent variable (Sileyew, 2019).

The population for this study is made up of all the cement companies in Nigeria. As at December 2020, there were nine (9) cement companies in Nigeria. From the nine cement companies that form the study population, a sample of three cement companies was taken using the purposive sampling technique. The three cement companies were selected because they are the only cement companies listed on the Nigerian Stock Exchange throughout the period covered by the study (from 2010 to 2020).

The research utilizes secondary data because it is the most appropriate for the survey since much of the information needed to answer the research questions is ratio-related, which have been collected from the published annual financial statements of the cement industries in Nigeria. The contents of the financial statement include the following: (i) Statement of financial position; (ii) Statement of comprehensive income;(iii) Statement of cash flow and (iv) Statement of changes in equity.

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## METHOD OF DATA ANALYSIS

This study adopted a panel regression estimation technique. Panel data is an important method of longitudinal data analysis because it allows for a number of regression analyses in both spatial (units) and temporal (time) dimensions. In Panel regression, there are three possibilities: Pooled Regression Model, Fixed Effect Model, and the Random Effects Model.

### Model Specification

For the purpose of the study we will adopt the traditional approach by Duran (1958) as modified by Shoab, Onalapo and Kajola (2012) and Olusuyi, Araoye (2017) with little modifications to suit the objective and purpose of the study. The explicit model is stated as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \epsilon_{it}$$

Where,

Y = dependent, X = independent,  $\epsilon$  = error, i = the total of individual, t = the time, i x t = Total of observation.

$$ROA_{it} = \beta_0 + \beta_1 DER_{it} + \beta_2 TDTA_{it} + \beta_3 SG_{it} + \beta_4 FMSZ_{it} + \mu_{it} \dots\dots\dots (1)$$

ROA<sub>it</sub> = Return on assets of firm i at period t (Proxy for firm profitability, a dependent variable)

DER<sub>it</sub> = Debt–equity ratio of firm i at period t (proxy for capital structure, an independent variable)

TDTA<sub>it</sub> = Total debt to total assets of firm i at period t (proxy for capital structure, an independent variable)

SG<sub>it</sub> = Sales growth of firm i at period t (control variable, an independent variable)

FMSZ<sub>it</sub> = Firm size of firm i at period t (control variable, an independent variable)

i = Selected Company

t = Time Series

u<sub>it</sub> = Error Term

$\beta_0$  = Constants

$\beta_1, \beta_2,$  and  $\beta_3$  = Coefficient of determination

**Decision Rule:** Reject Ho if  $P < 0.05$

Accept Ho if  $P > 0.05$

The decision rule is that if the p-value is less than the level of significance of 0.05, the null hypothesis will be rejected while the alternate hypothesis is accepted. But if the p-value is greater than the level of 0.05, accept the null hypothesis and reject the alternate.

## ESTIMATION AND RESULTS

**Table 1. Correlation**

	ROA	TDTA	DER	SG	FMSZ
ROA	1				
TDTA	0.565978	1			
DER	-0.13692	-0.54269	1		
SG	-0.14503	-0.1767	0.083203	1	
FMSZ	-0.18053	-0.53259	0.956754	0.125658	1

Table 1 shows the correlation among the variables. The correlation result revealed that debt Debt equity, and total debt correlated to return on assets (ROA) by -13. 6%, and 56.6 %. While the control variables sales growth and firm size are negatively correlated to ROA by -14.5% and 18.1%. The result indicated a mixture of weak and strong correlations among the variables.

### Pre-diagnostic test

This study tested for data normality by applying the Jarque-Bera test. The result shows that since the p-value is 0.4561 is greater than 0.05 level of significance, the data is normally distributed and appropriate for a parametric analysis such as adopted in this study. Consequently, Unit root test was conducted to ascertain the level of stationarity of the data.

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**Table 2. Im, Pesaran and Shin (IPS) Unit Root Test**

Variable	Level	P-value	First Difference	P-value	Order of co-Integration
ROA	-2.43	0.0075	-4.44	0.0000	I(0)
DER	-1.88	0.0299	-1.75	0.0401	I(0)
TDTA	-1.80	0.0358	-3.31	0.0005	I(0)
SG	-2.53	0.0058	-6.12	0.0000	I(0)
FMSZ	-3.541	0.0002	-3.752	0.0001	I(0)

Source: Eviews output

Table 2 shows the unit root result of the variables used for this study. It revealed that the non-stationary data was transformed by differencing each variable. The result of the first difference for all the variables under IPS method indicated stationarity. This is because the p-values for each variable are less than the level of significance of 0.05. It is therefore, concluded that all the variables are stationary at level difference and all the variables are integrated at order 0, i.e I(0). Based on this result, there is no need for co-integration.

**Table 3. Results of Pooled Regression Estimates**

	Coeff.	Std	t-test	P-value
$TDTA_{it}$	0.194376	0.047000	4.135695	0.0002**
$DER_{it}$	-0.057572	0.101346	-0.568076	0.5733
$SG_{it}$	-0.020528	0.052719	-0.389387	0.6992
$FMSZ_{it}$	0.027516	0.025000	1.100647	0.2780
CONSTANT	-0.035844	0.139482	-0.256977	0.7986
$R^2$	0.3433			
N	42			
$F^*$	6.623	0.0010		

**Dependent variable: ( $ROA_{it}$ ).**

Note: \* \*\* \*\*\* show significance at 1 percent, 5 percent and 10 percent respectively

The OLS regression shows that total debt (TDTA) has a positive effect on return on assets (ROA) with a coefficient value of 0.1943. This means that total debt (TDTA) has led to increase in the return on asset (ROA).

The OLS regression shows that equity (DER) has a negative effect on return on Asset (ROA) with a coefficient value of -0.05757. This means that equity (DER) has led to decrease in the return on Asset (ROA).

The result from Table 3 shows that the control variables, sales growth (SG) has a negative effect, while firm size (FMSZ) is positive. This indicated that sales growth (SG) and firm size (FMSZ) have negatively and positively affected the level of ROA respectively of cement firms in Nigeria. The coefficient of determination  $r^2=0.3434$  shows that a 34.34% change in  $ROA_{it}$  is as a result of the changes in total debt (TDTA), sales growth (SG) and firm size (FMSZ). The F- test with a value of 6.62 and p-value of 0.001040 shows that there is a strong linear dependency existing between the independent and dependent variable.

### DISCUSSION OF FINDINGS

Debt has significant effect on the profitability of cement industry in Nigeria is accepted. The result is not consistent with the findings of Kipasha and Moshi (2014) who explored Capital structure and firm performance, with evidence from commercial banks in

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Tanzania. Their findings indicated a presence of significant negative relationship between total debt to equity and long-term debt to equity with bank cost efficiency and return on equity.

The finding is in line with the theory of capital structure because increased debt would facilitate efficient functioning of cement industry in Nigeria. Debts are cost savings and they reduce the risk of owners. Effective and efficient use of Debt in the cement industry can lead to profitability and consequently the performance of the cement industry in Nigeria. When the cement industry is performing well, it improves the gross domestic product (GDP) of a country and invariably solving the problem of unemployment of the land.

Debt equity does not lead to increase in profitability of cement industry in Nigeria. The result is consistent with the capital structure theory even though the finding shows that equity has no significant effect on the profitability of cement industry in Nigeria. The result is in line with the findings of Abbasali (2012) who examined the relationship between capital structure and firm performance, where multiple regression model was applied to determine the relationship between independent variables of debt ratios against dependent variables of return on asset (ROA) and return on equity (ROE). The findings of the review indicated a negative relationship between debt ratio and financial performance. However, the result is not in agreement with the findings of Chechet and Olayowola (2014) who studied the relationship between capital structure and profitability of firms from an agency theory perspective. Multiple regression analysis was used where Profitability for a given period was the dependent variable and the independent variable was equity ratio for the period. The results showed that equity has a negative correlation of 1% on the capital structure of firms. Therefore, the study concluded that a higher proportion of debt in capital structure has a negative impact on the firms' profitability and equity financing as such will affect the profitability of a firm's profits though, not significantly.

The cement industry that solely depends on equity capital for sustainability will find it difficult to succeed because the cement industry is a very high capital-intensive venture that needs versatility through external funding for it to thrive or survive. Therefore, the cement industry that depends on equity capital alone would find it difficult to grow and develop, and as a result of that, may not contribute meaningfully to the growth of a country's GDP, thus, increasing a nation's unemployment problem.

## CONCLUSION AND RECOMMENDATIONS

The main objective of this study is to identify the main factors of capital structure and their effects on the profitability of cement industry in Nigeria. Specifically, the study examines the effects of debt, and equity financing on the value of the firm or the cement industry in Nigeria. From the findings and discussions, the following conclusions were derived: Debt has a significant effect on the profitability of the cement industry in Nigeria. On the other hand, Equity financing do not have any significant effect on the profitability of the cement industry in Nigeria.

It is recommended that cement industry owners should diversify their sources of financing their businesses by focusing more on debts so as to save their costs and reduce their risk in the investment. Industry owners should look outside the box by employing other sources of financing their businesses like debentures, bonds and so on, other than absolute dependence on equity.

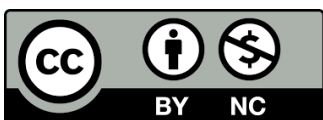
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