Effect of Corporate Financing on Shareholders Wealth

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ABSTRACT

The study evaluates the effect of corporate financing on shareholders wealth, in Nigerian Pharmaceutical Industry. The study used 5 out of the 15 firms listed in the Nigerian Stock Exchange based on judgmental reasoning while composite multiple regression model analysis was applied. Findings of the study are that retained earning has a negative and significant effect on economic value added of firms in Nigerian Pharmaceutical Industry and also that equity capital as well as debt capital each has a negative and significant effect on the economic value added of firms in Nigerian Pharmaceutical Industry whereas only trade payable has a positive and significant effect on economic value added of firms in Nigerian Pharmaceutical Industry. The study therefore recommends that firms in Nigerian Pharmaceutical Industry should strive to increase their turnover so as to improve their cash flows from operating activities. Again, that total assets of firms in Nigeria Pharmaceutical Industry should be enhanced in order to increase their production capacity and avoid the use of equity as a major source of finance among others.

Keywords: Corporate, financing, shareholders, wealth and industries.

INTRODUCTION

The main objective of every business is to create value for its stakeholders such as shareholders, creditors, investors, employees [1]. This is in agreement to agency theory by [2] which states that the conflict of interest between agent (manager) and principal (shareholders) should be minimized by reconciling the differences in their risk tolerance. Therefore management should take business decisions that maximize wealth of the most important stakeholders- the shareholders but in a corporate manner [3, 4].

Corporate finance is the area of finance that deals with the different sources of funding, the capital structure and actions taken by managers to increase value of firm to shareholders as well as tools used to allocate financial resources [5].

Companies are constantly faced with financing or capital structure decision for future investment [6]. Capital structure is the relationship which exists between the various classes of capital used by the firm in financing its operations [7], besides it is the interaction between the company's internal reserve, debt capital and equity capital and preference stock. According to [8] the way a firm generates money to finance its operations and in what way it assigns these financing options to its statement of financial position is referred to as company’s capital structure. Capital structure of a company describes the relative amounts of different Types of securities which are used to finance the company’s activities. Capital structure decisions of companies are
believed to be used to reduce taxes, bankruptcy cost, and or as signaling, bonding or control devices.

According to [9] there are two basic sources of raising capital which includes: internal and external sources. He went further to define external financing as that part of the total debt in a business that is owed to outsiders, these include long term debt (such as loan, lease, debentures etc.), short term debt (such as trade payable, bank overdraft, treasury bills etc.) and equity while internal source refers to funds generated from within the enterprise which is mostly retained earnings which a company decides the amount to be ploughed back into the business (to finance investment) rather than paid out as dividend to shareholders.

[10] say that access to finance is vital for the survival, growth and performance of any company. Access to external finance is a key determinant of the company’s ability to develop, operate and expand for no business can survive without enough fund for working capital, non-current asset, investment, employment of skilled employees, development of markets and new products [11]. The different use of the various sources of fund and their effect on company’s value varies from country to country due to the differences in financial system and institutional factor. Nigeria is a developing country with its economic structure that of an underdeveloped as oil and gas dominates its economy [12].

The major problem of corporation is the difficult task on the side of directors to raise fund and strike a balance between the various proportions of fund to be gotten from the various sources (capital mix) for financing its' operations and at the same time increase the wealth of shareholders and growth of company in a complex economic environment in which resources are scarce [13].

**STATEMENT OF THE PROBLEM**

The irrelevance proposition of financing choices by [14] has remained subject of debate. The dividing line is whether a firm uses equity or debt or retained earnings or trade credit, the value of the firm does not change whereas the other side of the argument holds that firms value changes in relation to the sources of financing. Consequently while [15], argue that the use of retained earnings as a source of finance increases performance, Modigliani and Miller maintain that debt has a positive effect on performance. On the other hand [16] said that debt has a negative relationship with performance. Given that firms performance can make or mar the value of shareholders wealth, there is need to evaluate the effect of various financing choices on shareholders wealth.

**OBJECTIVES OF THE STUDY**

The general objective of this study is to evaluate the effect of corporate financing decision on shareholders wealth whereas the specific objectives include:

1. Evaluate the effect of total debt on economic value added of firms in Nigeria pharmaceutical Industry.
2. Ascertain the effect of equity securities on economic value added of firms in Nigeria pharmaceutical Industry.
3. Determine the influence of trade payable on economic value added of firms in Nigeria pharmaceutical Industry.
4. Examine the influence of retained earnings on economic value added of firms in Nigeria pharmaceutical Industry.
RESEARCH QUESTIONS

The following questions were used in the study:

1. To what extent does total debt affect economic value added of firms in Nigeria pharmaceutical Industry?
2. What is the degree of effect, equity securities have on economic value added of firms in Nigeria pharmaceutical Industry?
3. To what level does trade payable affect economic value added of firms in Nigeria pharmaceutical Industry?
4. To what magnitude does retained earnings influence economic value added of firms in Nigeria pharmaceutical Industry?

STATEMENT OF HYPOTHESES

For the purpose of achieving the objective of the study, and in line with the research questions, the following hypotheses guided the study:

1. Ho Total debt does not significantly affect economic value added of firms in Nigeria pharmaceutical Industry.
2. Ho Equity securities do not significantly affect economic value added of firms in Nigeria pharmaceutical Industry.
3. Ho Economic value added is not significantly affected by trade payables of firms in Nigeria Pharmaceutical industry.
4. Ho Retained Earnings does not significantly affect economic value added of firms in Nigeria pharmaceutical Industry.

CAPITAL STRUCTURE

The capital of a company, according to [17], is an amount of money which an individual or entity possesses for the sole purpose of taking investment opportunities which should not reduce in value over time. [18] sees capital structure as the relationship between the various classes of capital used in financing the operations of a firm. Uremadu and Efobi (2012) as sited by [19], posit that the capital structure of a firm consist of long-term sources of finance which include debt and equity, and the short-term sources of finance, which include, cash, reserves, trade-payable among others.

[20] identify a more comprehensive capital structure composition, based on their study of Australian small and medium scale businesses capital structure behaviour. Consequently, they identified that a company’s capital structure should include the following:

1. Reinvested profits (R.Es);
2. Short-term debt financing like trade credit;
3. Long-term debt financing like debentures and long-term debts etc.
4. New equity capital injections from existing owners and owner managers;
5. New equity capital from uninvolved parties like outside investors, venture capitalists etc.

Debt

Debt is a contractual obligation of the issuer to make interest and principal payments over a specific period and the cash payment to debt holders are limited in amount and duration and it is a cheaper source of capital as its interest payment is tax deductible and its holders are less tolerant of risk [21]. The inability of the company to repay this
commitment and the interest accruable to this commitment would attract distress for the company and this may ultimately lead to bankruptcy.

Business dictionary defines debt as a duty or obligation to pay money, deliver goods/render services under an express or implied agreement. The use of debt in a firm as a source of fund creates financial leverage that can multiply yield on investment as long as returns generated by debt exceed its cost. MM's theory sees debt as the best source of finance for future investment or business activities. According to agency theory, the use of debt as a source of finance ensures that management is disciplined by the financial market thereby reducing agency cost and increasing firm’s value and it gives a real situation of the firm (state of performance).

**Equity Capital**

Equity financing entails the ability of the firm to raise its external funds from the public and at the same time, issue out a part of the firm’s ownership right evidenced by share certificate [22]. [23] states that equity holders are owners of the business whose potential value and duration of their investment is open-ended and they are being rewarded with dividend from profit made by the company. Equity could be seen as a claim of a holder of common stock or ownership interest in stock or preferred stock. Also it represents fund contributed by owners (stock holders) plus retained earnings. It is also seen as net worth of the company (total asset minus total liability) (business dictionary).

In accounting and finance equity is seen as the difference between the value of asset and cost of liabilities of something owned for they are paid dividend as reward for investment based on the number of equity shares owned (wikipedia). [24], refers to equity security as a financial asset that entitles the owner to claim on the profit of a particular company. He has right to sell shares at a profit or loss at any point in time [25]. Equity allows access to funds without incurring debt and it gives its holder ownership right to business (right to vote on important issues concerning a firm) and a claim to future earnings of the firm.

The use of additional equity as a source of finance for business activities is considered the last resort of financing option [26] because additional equity reduces the share value of the former shareholders thereby destroying their value by ownership dilution. Also using equity to finance future investment shows there is a reduction in value of equity stockholders as a result destruction of current shareholders value [27].

**Trade Payable**

Trade payable is the supplier whose payment for goods or services has been processed but who has not yet been paid but this serves as finance for the operations of a business on an on-going basis, which is considered as short-term debt mostly used in a tight monetary policy and to solve financial friction of small business enterprises (SMEs) [28]. [29] posit that trade credits exist between the buyer and the seller in which the seller allows the buyer sometime before payment for the goods or service instead of immediate cash payment.

According to [30], it is part of a joint commodity and financial transaction in which a firm sells goods or services and simultaneously extends credit for the purchase to the customer. Trade credit plays an important role in firm financing policy, for the buyer it is a source of financing through accounts payable [31]. It does not rely on formal collateral but on trust and reputation [32]. Trade payable is an amount owned by a firm to its suppliers for goods delivered or service consumed by the firm in the ordinary
course of business which is usually classified as current liabilities because it is usually paid within one year.

Trades payable constitute all money a firm owns the vendor he buys business supplies and materials included in its inventory. It is a form of credit offered by supplier to allow them to pay for product or services after it has already been received (www.investopedia.com). Trade credit represents an interest free term loan used to purchase current asset on credit with terms of payments normally varying from between 30 to 90 days.

Retained Earnings

Retained earnings could be seen as cumulative earnings of a firm minus the dividend declared since its existence and likewise an amount not yet distributed to its stockholders [33]. It does not pull financial cost, facilitates the expansion of the company and protects the financial autonomy [34]. Retained earnings is that part of firm’s profit kept aside for investment into the business or payment of debt and its interest rather than payment to shareholders as dividend [35]. Retained earnings is seen as the percentage of net earnings not paid out as dividends but retained by the firm to be reinvested in its core business or to pay debt (www.inestopedia.com). [36], sees retained earnings as that part of profit made that is kept by directors for expansion purposes of the company and not shared to shareholders as dividend but recorded under shareholders equity in the statement of financial position.

The use of retained earnings as a source of finance for investment opportunity is preferred by many organization as it has no restrictive conditions, allows escape from asymmetric information and increases the chances of firms growth [37, 38].

Shareholders Wealth

Shareholders wealth is the collective wealth conferred on shareholders through their investment in a company. It is said that issuing more shares will reduce shareholder wealth while paying dividend will increase it (wise geek.com).

Theoretical Framework

Financing option has numerous theories surrounding it such as trade off theory by [39], pecking order theory by [40], and finance theory by [6].

Trade-Off Theory

This theory argues that more profitable firms prefer debt financing as compared to equity financing for the sake of profit, since more debt allows for more tax benefit and low agency cost as debt can be acquired at low cost.

Pecking Order Theory

This theory says that a firm has more profitable finances through retained earnings because it maximizes the value of existing shareholders before considering debt and equity if additional finance is needed and it almost has no cost. It supports hierarchical order which puts into consideration those benefits of resources to be used.

Financing theory

This opines that trade credit (account payable) is seen as a substitute for firms financing due to the close contact between the buyer and the supplier. Therefore firms prefer its
use because it enables business to make purchases at little or no cost and serves as an 
evaluation tool to analyze quality of product.

**Empirical Review**

**Debt, Equity and Performance**

[37] studied the effect of capital structure on financial performance of Nigeria quoted 
conglomerates for the period 2011-2015. The study made use of descriptive statistics 
and the pooled ordinary least square regression analytical method were used to analyze 
data and it was shown that capital structure has effect on return on asset and asset 
turnover but non on equity and earning of the conglomerate.

[22] evaluated the effect of capital structure (debt and equity) on firms’ financial 
performance and shareholders wealth in textile sector of Pakistan. Regression analysis 
was used to analyse sample data of 155 textile firms for the year 2006 to 2011. Result 
shows that the capital structure positively impacts the firm performance and 
shareholders wealth.

[3] examined the effect of capital structure on performance using three manufacturing 
companies selected randomly from the food and beverage categories for a period of five 
years (2007-2011) and using the static trade-off and the pecking order theory point of 
view. He adopted the use of correlation analysis method and revealed that each of debt 
to capital, debt to common equity, short term debt to total debt and the age of the firms’ 
is significantly and positively related to return on asset and return on equity but long 
term debt to capital is significantly and relatively related to return on asset and return 
on equity. His hypothesis also tested that there is significant relationship between 
capital structure and financial performance using both return on asset and return on 
equity.

[1] examined the effect of capital structure on profitability of listed firms in Ghana 
during the five year period from 2005-2009 using regression analysis to investigate the 
data as well as average profitability and debt ratio was used to determine dependence on 
debt and study revealed there exist statistically significant positive relationship between 
profitability and short term debt and significantly negative relationship between 
profitability and total long term debt. However result revealed a statistically negative 
relationship between profitability and total debt.

[7] researched on the impact of capital structure and liquidity of corporate returns in 
Nigeria. Data were gotten from the financial statement for period covering 2002-2006., it 
data was analysed using OLS methodology, which showed a positive and significant 
influence of ratio of long term debt to equity and value of short- term debt , on 
profitability.

[8] examined ‘does the use of outside’ fund enhances shareholders wealth? Evidence 
from Nigeria for the period 2004 to 2008 using regression analysis. The study reveals 
that outside fund has a positive but not significant effect on shareholders wealth.

[11] also studied the Impact of Debt on asset utilization of 28 quoted firms in Nigeria 
stock exchange for the period, 2004- 2008 using regression analysis. Its result shows a 
negative and insignificant influence of debt on asset turnover indicating a reduction in 
asset utilization as debt increases.

[15] studied effect of capital structure on performance, it used a study of five quoted 
firms within a period of nine years (1999-2007) from the static trade-off and agency cost 
theory point of view. They employed the panel data regression model and revealed in
their study a positive relationship between firms’ performance and equity financing as well as between firms’ performance and debt-equity ratio. There is also a negative relationship that exists between firm’s performance and debt financing due to high cost of borrowing in the country.

[16], this study aimed to test the impact of the financing decision on the performance of a sample of companies listed on Amman Stock Exchange Securities has reached 53 companies for the period (1999-2008) and the researcher has focused on to examine the relationship between the company’s debts and its impact on return on assets and return on equity using the SPSS, the study found no statistically significant relationship between the ratio of indebtedness and long-term loans and short-term loans and study variables except for a statistically significant relationship between The debt ratio and return on investment.

Retained Earnings and Performance

[10] researched on the effect of retained earnings on the returns of firms listed at Nairobi securities exchange using secondary data for the period of 2009 to 2013 in which data was analyzed using SPSS statistical package for social science and regression analysis. Results shows relationship between return on retained earnings was statistically insignificant that is retain Earnings is irrelevant in influencing stock of return aimed by investors of NSE listed firm.

[16] examined the impact of retained earnings on stock returns of food and personal care goods industry listed in Karachi stock exchange. The study consist of seven active company and data used was for 2009-2011. Linear regression and spearman’s correlation analysis was used to analyze data & a week and insignificant relationship was found to exist between retain earning and stock returns.

[7] investigated the application of pecking order concept by NSE companies and found that NSE gave priority to internal resources for finance as their total assets’ profitability, liquidity levels and sales amounts increased and preferred a lower level of external resource use. The study further revealed that those companies with more internal funds utilized these internal funds to fund their new projects rather than using debt or even equity, while those companies with limited internal funds opted to get debt to fund their projects and if debt was not readily available they opted for equity, thus following the pecking order theory.

[9] further restate this argument while analyzing the substitution effect existing between internal and external financing. They concluded that more profitable firms would depend more on internal financing than they would depend on external financing. This implies that more profitable firms would issue less of external finance (debt capital) and would depend more on internal finance (equity capital); while the less profitable firms would have no option, but to depend on external finance, which varies from debt financing to equity financing.

Trade Payable and Performance

[20] examined the effect of account payables on financial performance of publicly listed manufacturing companies at NSE, Kenya. Census sampling technique and secondary data was used. SPSS was used to carry out the descriptive analysis of the variables and multiple regression was used to test the relationship between the account payable and firm performance. The result suggests that there is a positive relationship between account payable and profitability.
[23] investigated trade credit in corporate financing in South Africa of companies listed in JSE. The study uses panel data collected for 92 companies for period 2001-2010 and employs the generalized method of moments (GMM) estimation technique. The study suggest that firms have a target level and that firms internally generated resources, investment opportunities and short-term financial debt play an important role in the use of trade credit as a source of financing among the listed companies.

[37] examined trade credit and profitability in small and medium enterprise in Netherlands. 71 SMEs were investigated from 2009-2103 using Regression analysis, the result shows that account payable is positively related to the profitability.

Summary of Empirical Review

Empirical Review Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Topic</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Ubesie</td>
<td>Effect of capital structure on financial performance of Nigeria quoted conglomerates</td>
<td>descriptive statistics and the pooled ordinary least square regression</td>
<td>Capital structure has effect on return on asset and asset turnover but non on equity and earning of the conglomerate.</td>
</tr>
<tr>
<td>2016</td>
<td>Benjamin and Gladys</td>
<td>Examined the effect of account payables on financial performance of publicly listed manufacturing companies at NSE, Kenya.</td>
<td>SPSS analytical tool and multiple regression</td>
<td>The result suggests that there is a positive relationship between account payable and profitability.</td>
</tr>
<tr>
<td>2014</td>
<td>Yujie</td>
<td>Examined trade credit and profitability in small and medium enterprise in Netherlands.</td>
<td>Regression analysis</td>
<td>the result shows that account payable is positively related to the profitability</td>
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<tr>
<td>2014</td>
<td>Mujahid</td>
<td>Effect of capital structure (debt and equity) on firms' financial performance and shareholders wealth in textile sector of Pakistan</td>
<td>Regression analysis</td>
<td>capital structure positively impacts the firm performance and shareholders wealth</td>
</tr>
<tr>
<td>2014</td>
<td>Kwenda and</td>
<td>Investigated trade credit in corporate financing</td>
<td>the generalized method of</td>
<td>The study suggest that firms have a target level and that firms</td>
</tr>
<tr>
<td>Year</td>
<td>Authors</td>
<td>Title</td>
<td>Methodology</td>
<td>Findings</td>
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<td>----------------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------</td>
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<td>2014</td>
<td>Michael</td>
<td>Effect of retained earnings on the returns of firms listed at Nairobi securities</td>
<td>SPSS and regression analysis</td>
<td>Results shows relationship between return on retained earnings was statistically insignificant</td>
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<tr>
<td>2013</td>
<td>Akinyomi</td>
<td>Effect of capital structure on performance</td>
<td>correlation analysis</td>
<td>There is significant relationship between capital structure and financial performance using both return on asset and return on equity</td>
</tr>
<tr>
<td>2013</td>
<td>Abert &amp; Micheal</td>
<td>Effect of capital structure on profitability</td>
<td>regression analysis, average profitability and debt ratio</td>
<td>There is a statistically significant positive relationship between profitability and short term debt and significantly negative relationship between profitability and total long term debt. However result revealed a statistically negative relationship between profitability and total debt.</td>
</tr>
<tr>
<td>2012</td>
<td>Uremadu and Efobi</td>
<td>The impact of capital structure and liquidity of corporate returns in Nigeria.</td>
<td>OLS methodology</td>
<td>It showed a positive and significant influence of ratio of long term debt to equity and value of short-term debt, on profitability</td>
</tr>
<tr>
<td>2012</td>
<td>Onwumere</td>
<td>‘does the use of outside’ fund enhances using regression</td>
<td></td>
<td>The study reveals that outside fund has a positive but not</td>
</tr>
<tr>
<td>Authors</td>
<td>Title</td>
<td>Year</td>
<td>Analysis</td>
<td>Findings</td>
</tr>
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<tr>
<td>Ibe &amp; Ozoh</td>
<td>Shareholders wealth? Evidence from Nigeria</td>
<td>2012</td>
<td>using regression analysis</td>
<td>Its result shows a negative and insignificant influence of debt on asset turnover indicating a reduction in asset utilization as debt increases.</td>
</tr>
<tr>
<td>Onwumere, Ibe &amp; Ozoh</td>
<td>The Impact of Debt on asset utilization of 28 quoted firms in Nigeria stock exchange</td>
<td>2012</td>
<td>regression analysis</td>
<td>A week and insignificant relationship was found to exist between retain earning and stock returns.</td>
</tr>
<tr>
<td>Falak &amp; Faiza</td>
<td>Impact of retained earnings on stock returns of food and personal care goods industry listed in Karachi stock exchange</td>
<td>2012</td>
<td>Linear regression and spearman’s correlation analysis</td>
<td>Their study a positive relationship between firms’ performance and equity financing as well as between firms’ performance and debt-equity ratio. There is also a negative relationship that exists between firm’s performance and debt financing.</td>
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<tr>
<td>Simon-Oke and Afolabi</td>
<td>Effect of capital structure on performance, quoted firms</td>
<td>2011</td>
<td>panel data regression model</td>
<td>NSE gave priority to internal resources for finance, debt and Lastly resorting to equity</td>
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<tr>
<td>Mbugua,</td>
<td>Investigation of the application of pecking order concept by NSE companies</td>
<td>2010</td>
<td></td>
<td>The study found no statistically significant relationship between the ratio of indebtedness and long-term loans and short-term loans and study variables except for a statistically significant relationship between The debt ratio and return on investment.</td>
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<tr>
<td>Ghadome</td>
<td>The impact of the financing decision on the performance of a sample of companies listed on Amman Stock Exchange Securities</td>
<td>2008</td>
<td>SPSS analytical tool</td>
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</table>
2007 Almeida and Campello further restate this argument while analyzing the substitution effect existing between internal and external financing. Shows that more profitable firms would depend more on internal financing than they would depend on external financing.

Source: Authors’ Arrangement of Empirical Review

Research Design

The study adopted an ex-post facto research design, and made extensive use of secondary data collected from the financial statement of pharmaceutical firms in the first tier of Nigerian stock exchange for the period of 2008-2014.

5 out of the 15 Pharmaceutical firms listed in the Nigerian stock exchange were selected using judgmental reasoning.

The dependent variable is economic value added while the independent variables are retained earnings, debt securities, equity securities and trade payables.

Model Specification

The composite multiple regression (prediction) model is statistically formulated as,

\[ EVA_{t,i} = \beta_0 + \beta_1 \text{TODEBT}_{t,i} + \beta_2 \text{EQSEC}_{t,i} + \beta_3 \text{APAY}_{t,i} + \beta_4 \text{RE}_{t,i} + \varepsilon_t \]  

Where,

- **EVA**: Economic value added
- **TODEBT**: Total Debt
- **EQSEC**: Equity Security
- **TPAY**: Account payables (Trade payable)
- **RE**: Retained Earnings
- **\( \varepsilon \)**: Error Term

- \( \beta_0 \): Coefficient (constant) to be estimated
- \( \beta_i - \beta_6 \): Parameters of the independent variables to be estimated

Description of Model Variables

The research variables are structured into dependent and independent variables for the purpose of the analysis. The dependent variable of the study is economic value added while the independent variables are Equity Capital, Debt Capital, trade payable and retained earnings.
Table 2: Model Variables Description

<table>
<thead>
<tr>
<th>Short Form (Acronym)</th>
<th>Details</th>
<th>Source of Data</th>
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<tbody>
<tr>
<td>EVA</td>
<td>Economic value added</td>
<td>Authors computation</td>
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<td>EQSEC</td>
<td>Equity Security</td>
<td>Annual Report and Accounts</td>
</tr>
<tr>
<td>TDEBT</td>
<td>Total Debt</td>
<td>Annual Report and Accounts</td>
</tr>
<tr>
<td>TPAY</td>
<td>Trade Payable</td>
<td>Annual Report and Accounts</td>
</tr>
<tr>
<td>RE</td>
<td>Retained Earnings</td>
<td>Annual Report and Accounts</td>
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Source: Author’s Arrangement.

DATA PRESENTATION

TABLE 3: TIME SERIES DATA OF FIDSON PLC

<table>
<thead>
<tr>
<th>YEAR</th>
<th>RE</th>
<th>EQUITY</th>
<th>TP</th>
<th>DEBT</th>
<th>EVA</th>
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<tbody>
<tr>
<td>2008</td>
<td>1,216,626,000</td>
<td>750,000,000</td>
<td>776,226,000</td>
<td>756,104,000</td>
<td>487,120,235</td>
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<td>2009</td>
<td>1,957,422,000</td>
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<td>913,833,000</td>
<td>1,660,111,000</td>
<td>536,088,145</td>
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<td>2010</td>
<td>1,481,592,000</td>
<td>750,000,000</td>
<td>275,214,000</td>
<td>1,808,014,000</td>
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<td>2011</td>
<td>1,643,849,000</td>
<td>750,000,000</td>
<td>250,611,000</td>
<td>3,165,802,000</td>
<td>553,913,065</td>
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<td>2012</td>
<td>2,404,478,000</td>
<td>750,000,000</td>
<td>1,517,386,000</td>
<td>2,692,339,000</td>
<td>600,339,426</td>
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<td>2013</td>
<td>1,521,257,000</td>
<td>750,000,000</td>
<td>1,692,585,000</td>
<td>3,980,867,000</td>
<td>460,083,972</td>
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<td>2014</td>
<td>2,043,001,000</td>
<td>750,000,000</td>
<td>3,779,619,000</td>
<td>4,843,933,000</td>
<td>997,712,319</td>
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<tr>
<td>2015</td>
<td>2,602,420,000</td>
<td>750,000,000</td>
<td>4,212,210,000</td>
<td>4,645,471,000</td>
<td>1,088,238,596</td>
</tr>
</tbody>
</table>

Source: Company’s Annual Reports and Accounts
### TABLE 4: TIME SERIES DATA OF GSK PLC

<table>
<thead>
<tr>
<th>YEAR</th>
<th>RE</th>
<th>EQUITY</th>
<th>TP</th>
<th>DEBT</th>
<th>EVA</th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>4,622,000</td>
<td>1,415,000</td>
<td>6,075,000</td>
<td>9,560,000</td>
<td>4,585,217,925</td>
</tr>
<tr>
<td>2009</td>
<td>6,321,000</td>
<td>1,416,000</td>
<td>6,772,000</td>
<td>16,257,000</td>
<td>3,480,199,334</td>
</tr>
<tr>
<td>2010</td>
<td>4,779,000</td>
<td>1,418,000</td>
<td>6,888,000</td>
<td>15,100,000</td>
<td>3,933,707,787</td>
</tr>
<tr>
<td>2011</td>
<td>5,100,000</td>
<td>1,387,000</td>
<td>10,915,000</td>
<td>33,402,000</td>
<td>5,875,774,383</td>
</tr>
<tr>
<td>2012</td>
<td>642,000</td>
<td>1,349,000</td>
<td>8,054,000</td>
<td>18,302,000</td>
<td>4,368,083,224</td>
</tr>
<tr>
<td>2013</td>
<td>913,000</td>
<td>1,336,000</td>
<td>8,317,000</td>
<td>18,245,000</td>
<td>1,610,072,963</td>
</tr>
<tr>
<td>2014</td>
<td>(2,074,000)</td>
<td>1,339,000</td>
<td>7,958,000</td>
<td>18,784,000</td>
<td>790,764,523</td>
</tr>
<tr>
<td>2015</td>
<td>(1,397,000)</td>
<td>1,340,000</td>
<td>9,191,000</td>
<td>16,632,000</td>
<td>5,408,917,998</td>
</tr>
</tbody>
</table>

Source: Company’s Annual Reports and Accounts

### TABLE 5: TIME SERIES DATA OF MAY & BAKER PLC

<table>
<thead>
<tr>
<th>YEAR</th>
<th>RE</th>
<th>EQUITY</th>
<th>TP</th>
<th>DEBT</th>
<th>EVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>762,232,000</td>
<td>350,000,000</td>
<td>718,264,000</td>
<td>1,659,347,000</td>
<td>647,802,791</td>
</tr>
<tr>
<td>2009</td>
<td>714,313,000</td>
<td>350,000,000</td>
<td>550,888,000</td>
<td>2,244,534,000</td>
<td>345,413,003</td>
</tr>
<tr>
<td>2010</td>
<td>876,157,000</td>
<td>490,000,000</td>
<td>977,884,000</td>
<td>3,565,418,000</td>
<td>371,867,975</td>
</tr>
<tr>
<td>2011</td>
<td>1,038,000,000</td>
<td>490,000,000</td>
<td>853,992,000</td>
<td>2,641,768,000</td>
<td>392,704,053</td>
</tr>
<tr>
<td>2012</td>
<td>1,016,202,000</td>
<td>490,000,000</td>
<td>965,815,000</td>
<td>3,709,575,000</td>
<td>359,897,736</td>
</tr>
<tr>
<td>2013</td>
<td>913,113,000</td>
<td>490,000,000</td>
<td>1,120,343,000</td>
<td>3,523,022,000</td>
<td>449,392,984</td>
</tr>
<tr>
<td>2014</td>
<td>976,454,000</td>
<td>490,000,000</td>
<td>974,667,000</td>
<td>3,575,203,000</td>
<td>492,534,261</td>
</tr>
<tr>
<td>2015</td>
<td>995,486,000</td>
<td>490,000,000</td>
<td>1,549,196,000</td>
<td>3,128,739,000</td>
<td>511,207,303</td>
</tr>
</tbody>
</table>

Source: Company’s Annual Reports and Accounts
### TABLE 6: TIME SERIES DATA OF NEIMETH PLC

<table>
<thead>
<tr>
<th>YEAR</th>
<th>RE</th>
<th>EQUITY</th>
<th>TP</th>
<th>DEBT</th>
<th>EVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>328,326,000</td>
<td>328,630,000</td>
<td>554,820,000</td>
<td>773,268,000</td>
<td>163,751,615</td>
</tr>
<tr>
<td>2009</td>
<td>232,962,000</td>
<td>410,788,000</td>
<td>391,248,000</td>
<td>401,766,000</td>
<td>376,762,604</td>
</tr>
<tr>
<td>2010</td>
<td>355,009,000</td>
<td>410,788,000</td>
<td>386,106,000</td>
<td>351,126,693</td>
<td>173,142,833</td>
</tr>
<tr>
<td>2011</td>
<td>290,245,000</td>
<td>410,788,000</td>
<td>405,970,000</td>
<td>498,887,347</td>
<td>136,445,983</td>
</tr>
<tr>
<td>2012</td>
<td>391,743,000</td>
<td>653,980,000</td>
<td>425,833,000</td>
<td>646,648,000</td>
<td>65,870,055</td>
</tr>
<tr>
<td>2013</td>
<td>261,165,000</td>
<td>653,980,000</td>
<td>290,823,000</td>
<td>596,371,000</td>
<td>166,432,697</td>
</tr>
<tr>
<td>2014</td>
<td>489,700,000</td>
<td>784,776,000</td>
<td>350,512,000</td>
<td>390,419,000</td>
<td>189,941,378</td>
</tr>
<tr>
<td>2015</td>
<td>825,384,000</td>
<td>784,776,000</td>
<td>283,535,000</td>
<td>566,134,000</td>
<td>120,140,079</td>
</tr>
</tbody>
</table>

Source: Company’s Annual Reports and Accounts

### DATA ANALYSIS

### TABLE 7: DESCRIPTIVE STATISTIC – INDUSTRY ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>EVA</th>
<th>RE</th>
<th>EQUITY</th>
<th>TP</th>
<th>DEBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.26E+09</td>
<td>7.92E+08</td>
<td>4.40E+08</td>
<td>7.59E+08</td>
<td>1.62E+09</td>
</tr>
<tr>
<td>Median</td>
<td>5.02E+08</td>
<td>7.38E+08</td>
<td>4.90E+08</td>
<td>4.16E+08</td>
<td>7.65E+08</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.88E+09</td>
<td>2.60E+09</td>
<td>7.85E+08</td>
<td>4.21E+09</td>
<td>4.84E+09</td>
</tr>
<tr>
<td>Minimum</td>
<td>6587005</td>
<td>-2074000.</td>
<td>1336000.</td>
<td>6075000.</td>
<td>9560000.</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>1.70E+09</td>
<td>7.50E+08</td>
<td>2.94E+08</td>
<td>9.78E+08</td>
<td>1.60E+09</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.657923</td>
<td>0.811830</td>
<td>-0.437247</td>
<td>2.330835</td>
<td>0.560416</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>4.201884</td>
<td>2.775511</td>
<td>1.791734</td>
<td>8.376156</td>
<td>1.857616</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>16.58581</td>
<td>3.582223</td>
<td>2.966194</td>
<td>67.51230</td>
<td>3.415075</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000250</td>
<td>0.166775</td>
<td>0.226934</td>
<td>0.000000</td>
<td>0.181312</td>
</tr>
<tr>
<td>Sum</td>
<td>4.03E+10</td>
<td>2.54E+10</td>
<td>1.41E+10</td>
<td>2.43E+10</td>
<td>5.20E+10</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>8.98E+19</td>
<td>1.74E+19</td>
<td>2.68E+18</td>
<td>2.96E+19</td>
<td>7.90E+19</td>
</tr>
</tbody>
</table>
Table 7 shows that RE, EQUITY and DEBT have skewness value that are less than one, while EVA and TP have skewness coefficient that are not in excess of one. This indicates that the data for RE, EQUITY and DEBT are normally distributed while EVA and TP are not. The kurtosis coefficient also confirms that all the data series are normally distributed. The P-value for EVA and TP are significant for the Jarque-Bera statistics while others are not too far from being significant. This confirms a normal distribution for all the variables.

**TABLE 8: REGRESSION ANALYSIS – INDUSTRY ANALYSIS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE</td>
<td>1.177153</td>
<td>0.633513</td>
<td>1.858134</td>
<td>0.0741</td>
</tr>
<tr>
<td>EQUITY</td>
<td>-5.661330</td>
<td>1.114739</td>
<td>-5.078614</td>
<td>0.0000</td>
</tr>
<tr>
<td>TP</td>
<td>0.159949</td>
<td>0.377863</td>
<td>0.423299</td>
<td>0.6754</td>
</tr>
<tr>
<td>DEBT</td>
<td>-0.377361</td>
<td>0.236805</td>
<td>-1.593551</td>
<td>0.1227</td>
</tr>
<tr>
<td>C</td>
<td>3.31E+09</td>
<td>3.76E+08</td>
<td>8.810670</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Eviews 9.0 Software

**Interpretation of Regression Coefficient Result**

Table 8, indicates that a one naira change in Retained Earnings and Trade Payables will increase Economic Value Added by 1.177153 and 0.159949 respectively. Meanwhile, a unit change in Equity and Debt will decrease EVA by 5.661330 and 0.377361 respectively. This implies that Economic Value Added is influenced positively by retained earnings and trade payables. On the other hand Equity and Debt influence economic value added negatively in Nigeria Pharmaceutical industry.

**Interpretation of Durbin Watson Statistic**

The Durbin-Watson statistic shows a value of 1.697880. In this case, the Durbin Watson statistic is closer to 2 than 0 which indicates the absence of autocorrelation in the time series data. The result indicates the absence of positive serial correlation in the time series data extracted from the annual report and accounts of selected firms in Nigeria Pharmaceutical industry.

**Coefficient of Determination (R^2)**

The Adjusted R-squared is 0.554693. The adjusted R^2 reveals that only about 55% of the variations in Economic Value Added could be explained by the variables under study while about 45% could be explained by other factors capable of influencing Economic
Value Added in Nigeria Pharmaceutical Industry; such as government influence through price regulation, as well as the error term and the unexplained variables.

**TEST OF HYPOTHESES**

**TABLE 9: TEST OF HYPOTHESES ONE**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE</td>
<td>-1.014882</td>
<td>0.370662</td>
<td>-2.738026</td>
<td>0.0103</td>
</tr>
<tr>
<td>C</td>
<td>2.06E+09</td>
<td>4.01E+08</td>
<td>5.144491</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared: 0.199931  Mean dependent var: 1.26E+09
Adjusted R-squared: 0.173262  S.D. dependent var: 1.70E+09
S.E. of regression: 7.18E+19  Schwarz criterion: 45.30929
Sum squared resid: -721.4829  Hannan-Quinn criter.: 45.24805
Log likelihood: 7.496786  Durbin-Watson stat: 0.825937
Prob(F-statistic): 0.010294

**Source:** Eviews 9.0 Software

**Ho1:** Retained earnings do not significantly affect economic value added of firms in Nigeria Pharmaceutical industry.

**Decision Rule:** Reject Hₐ if P-Value is less than a-value of 0.05.

**Decision:** Table 9 reveals a P-Value of 0.0103 which is less than a-value of 0.05; Hₐ is therefore rejected in respect to retained earnings in the industry. This implies that retained earnings significantly affect economic value added of firms in Nigeria pharmaceutical industry.

**TABLE 10: TEST OF HYPOTHESES TWO**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQUITY</td>
<td>-4.243544</td>
<td>0.717398</td>
<td>-5.915184</td>
<td>0.0000</td>
</tr>
<tr>
<td>C</td>
<td>3.13E+09</td>
<td>3.78E+08</td>
<td>8.276087</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared: 0.538386  Mean dependent var: 1.26E+09
Adjusted R-squared: 0.522999  S.D. dependent var: 1.70E+09
S.E. of regression: 1.18E+09  Schwarz criterion: 44.66771
Sum squared resid: -712.6834  Hannan-Quinn criter.: 44.75932
Log likelihood: 7.496786  Durbin-Watson stat: 0.825937
Prob(F-statistic): 0.000002

**Source:** Eviews 9.0 Software
**Ho2:** Equity Capital do not significantly affect economic value added of firms in Nigeria Pharmaceutical industry.

**Decision Rule:** Reject $H_0$ if P-Value is less than a-value of 0.05.

**Decision:** Table 10 reveals a P-Value of 0.0000 which is less than a-value of 0.05; $H_0$ is therefore rejected in respect to equity capital in the industry. This implies that equity capital significantly affect economic value added of firms in Nigeria pharmaceutical industry.

**TABLE 11: TEST OF HYPOTHESES THREE**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP</td>
<td>-0.510507</td>
<td>0.303761</td>
<td>-1.680624</td>
<td>0.1032</td>
</tr>
<tr>
<td>C</td>
<td>1.65E+09</td>
<td>3.72E+08</td>
<td>4.426569</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

| R-squared | 0.086048 | Mean dependent var | 1.26E+09 |
| Adjusted R-squared | 0.055583 | S.D. dependent var | 1.70E+09 |
| S.E. of regression | 1.65E+09 | Akaike info criterion | 45.35076 |
| Sum squared resid | 8.20E+19 | Schwarz criterion | 45.44237 |
| Log likelihood | -723.6122 | Hannan-Quinn criter. | 45.38113 |
| F-statistic | 2.824498 | Durbin-Watson stat | 0.763803 |
| Prob(F-statistic) | 0.103221 | | |

**Source:** Eviews 9.0 Software

**Ho2:** Trade Payables do not significantly affect economic value added of firms in Nigeria Pharmaceutical industry.

**Decision Rule:** Reject $H_0$ if P-Value is less than a-value of 0.05.

**Decision:** Table 11 reveals a P-Value of 0.1032 which is higher than a-value of 0.05; $H_0$ is therefore accepted in respect to trade payables in the industry. This implies that trade payables do not significantly affect economic value added of firms in Nigeria pharmaceutical industry.
TABLE 12: TEST OF HYPOTHESES FOUR

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEBT</td>
<td>-0.460109</td>
<td>0.175593</td>
<td>-2.620313</td>
<td>0.0137</td>
</tr>
<tr>
<td>C</td>
<td>2.01E+09</td>
<td>3.97E+08</td>
<td>5.060429</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared 0.186243, Mean dependent var 1.26E+09
Adjusted R-squared 0.159118, S.D. dependent var 1.70E+09
S.E. of regression 1.56E+09, Akaike info criterion 45.23464
Sum squared resid 7.30E+19, Schwarz criterion 45.32625
Log likelihood -721.7543, Hannan-Quinn criter. 45.26501
F-statistic 6.866038, Durbin-Watson stat 0.816398
Prob(F-statistic) 0.013654

Source: Eviews 9.0 Software

Ho2: Debt do not significantly affect economic value added of firms in Nigeria Pharmaceutical industry.

Decision Rule: Reject $H_0$ if P-Value is less than a-value of 0.05.

Decision: Table 12 reveals a P-Value of 0.0137 which is less than a-value of 0.05; $H_0$ is therefore rejected in respect to Debt in the industry. This implies that Debt significantly affect economic value added of firms in Nigeria pharmaceutical industry.

DISCUSSION

Hypotheses one: This hypothesis states that Retained earning does not significantly affect economic value added of firms in Nigeria Pharmaceutical industry. From the result of the regression analysis in Table 9, it reveals that retained earning affects economic value added negatively and significantly in the tune of 0.0103. It also reveals that about 17% of changes in economic value added can be explained by retained earnings as shown by 0.173262 adjusted R-squared figure.

Hypotheses two: This hypothesis states that equity capital does not significantly affect economic value added of firms in Nigeria Pharmaceutical industry. The regression analysis result of Table 10 reveals that equity capital influenced economic value added negatively. The table also depicts that about 52% of changes in economic value added could be explained by equity capital. The remaining 48% will be explained by other factors not explained in the study.

Hypotheses three: This hypothesis states that trade payable does not significantly affect economic value added of firms in Nigeria Pharmaceutical industry. Trade payables affects economic value added negatively and insignificantly in the tune
of 0.1032 as can be seen in Table 11. The adjusted R-squared revealed that only about 5% of changes in economic value added can be explained by trade payables.

**Hypotheses four:** This hypothesis states that debt capital does not significantly affect economic value added of firms in Nigeria Pharmaceutical industry. The regression analysis result of Table 12 shows that debt capital influences economic value added negatively. The table also depicts that about 15% of changes in economic value added could be explained by debt capital. The remaining 85% will be explained by other factors not explained in the study.

The findings of the study are:

1. Retained earnings has a negative and significant effect on economic value added of firms in Nigeria Pharmaceutical Industry

2. Equity capital has a negative and significant effect on economic value added of firms in Nigeria Pharmaceutical Industry.

3. Trade payable has a positive and significant effect on economic value added of firms in Nigeria pharmaceutical industry.

4. Debt Capital has a negative significant effect on economic value added of firms in Nigeria pharmaceutical industry.

The following are hereby recommended:

(i) Firms in Nigeria Pharmaceutical Industry should strive to increase their turnover in other to improve their cash flows from operating activities.

(ii) Total of asset of firms in Nigeria manufacturing industry should be enhanced in other to increase their production capacity and avoid the use of equity as source of finance.

(iii) Firms in Nigeria manufacturing industry should opt to make use of any trade credit available to it

(iv) Firms in Nigeria pharmaceutical industry should reduce the amount of it borrows from outside source in financing its activities.

**REFERENCES**

7. Chasan, E. (2012), Mid-Size Firms Tap Retained Earnings to Fund Growth: the wall street journal