

## Corporate Finance Sources And Economic Value Added Of Pharmaceutical Firms In Nigeria

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### Abstract

The study examined the evaluate the relevance of corporate finance sources to economic value added of pharmaceutical firms in Nigeria. Equity capital, debt, and retained earnings were finance sources used for the study, while economic value added was the dependent variable. The study adopted an ex-post-facto research design, covering the period between 2007 and 2016. Secondary data was extracted from the sampled pharmaceutical firms in Nigeria. Multiple regression and correlation analysis were used for the data analysis. In line with the specific objectives of the study which is to ascertain the effect of equity capital, debt, and retained earnings on economic value added of pharmaceutical firms in Nigeria, it was revealed that equity capital has a positive and significant effect on economic value added of pharmaceutical firms in Nigeria. However, debt and retained earnings have a positive and insignificant effect on economic value added of pharmaceutical firms in Nigeria. The study, therefore, recommends that firms in Nigeria pharmaceutical industry should strive to increase the market value of their ordinary shares. This is because the use of equity capital as a corporate finance source affects economic value added positively. Despite the insignificant effect it has on economic value added, borrowing should be encouraged in the industry because it has a positive effect on the value added to the shareholders' finance. Pharmaceutical firms should increase their general reserves since its effect on economic value added is positive though insignificant. They should strike an equilibrium between dividend payout and earnings retention.

**Keywords:** Capital Structure, Economic Value Added, Equity Capital, Debt, Retained Earnings, Pharmaceutical firms.

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## I. Introduction

### 1.1 Background of the Study

Capital structure decisions are important to maximize the earnings of companies. Capital structure decisions are taken by considering factors like profitability, solvency and control. The capital structure theory underlines that financing strategy on capital structure is intended to enhance the value of the firm. Ideal capital structure will boost the economic value of the firm. On certain circumstances, the management may modify their targeted capital structure thus results will vary over time. Before a firm will select the capital structure to use in financing its activities, there should be a well-defined empirical strategy to be adopted so that the endpoint of financing a business, which is economic value creation, will be achieved. The effect of using equity capital in higher proportion as it relates to equity capital and retained earnings should be examined to not incur a loss at the end. This is also applicable to retained earnings and equity capital of firms.

Most firms in Nigeria pharmaceutical sector are confronted with financing issues. The pharmaceutical sector is an unpredictable one, including a wide range of stakeholders, for example, the manufacturers, national regulators, government ministries, the public, wholesalers and other stakeholders. Stakeholders in the industry need to create an environment through a concerted activity to enable the industry to flourish and attain its full potential in promoting economic growth and development in Nigeria.

The key challenges confronting Nigeria's pharmaceutical market include: counterfeit medicines, insufficient medical facilities, and low spending propensity of the residents. Cockburn (2004) posit that pharmaceutical industry is faced with an unstable productivity situation, despite the exceptional scientific accomplishments such as finishing the sequencing of the human genome, the rate at which the industry creates new products looks to be on the decline. This is synonymous with the Nigerian Pharmaceutical market as distribution of medicines is highly problematic. This is because too many organizations and stakeholders are

involved. Some major manufacturers contract private logistics organizations to distribute medicines while some international development partners even use the services of courier companies for delivery of medicines. The implication of this is that in some cases, medicines expire before they reach the end-users. In some circumstances, importers and local producers have their specified channels of distribution hence, sell directly to hospitals, retailers, and wholesalers. It is also generally believed that some 17 per cent of essential generic medicines as a whole are routinely imitated. As much as 30% of anti-malaria in the Nigerian market fall under the category of imitated drugs (Pharmaceutical Manufacturing Group of Manufacturers' Association of Nigeria 2010).

The previous current Government in Nigeria aspired to become one of the top 20 economies of the world by the year 2020 and the healthcare sector was their utmost priority. Undoubtedly, such an initiative would have impacted positively on the whole industrial sector, including local production of pharmaceuticals, and would have also boosted Nigerians' purchasing power to acquire medicines. Most of Nigeria's health indicators are poor and the country couldn't meet most of the targets for the vision 2020. The difficulty facing the health sector include the failure of Government to play an effective stewardship role, insufficient financing, inadequate healthcare infrastructure, inefficient distribution of the health workforce and ineffective and inefficient control amongst key regulators.

Nigeria as a nation is dependent on the industrial and commercial activities within the country to achieve this vision in 2020. For Nigeria to achieve its 2020 vision, there should be a great improvement in terms of finance and capital injection in the pharmaceutical sector which represent the hub for healthy living for Nigerians. This is because of general saying that 'health is wealth'. A healthy country will thrive economically. The amount of grants from the government to the pharmaceutical sector has been very minimal. There comes the need for adequate management of firms' capital structure to ensure optimality and economic value creation. The management of firms in this industry should try as much as possible to regulate their source of finance adequately to ensure the continuation and economic value creation. This will also empower them to also stick with their quality production of medicines that will be the only source of advantage against the fake medicines in the market.

Based on the above lingering problems, it will be very beneficial to explicitly evaluate the relevance of corporate finance sources to economic value added of pharmaceutical firms in Nigeria to put an end to the financial nemesis suffered by pharmaceutical companies in Nigeria due poor financing decision.

## **1.2 Objective of the Study**

The primary objective of the study is to evaluate the relevance of corporate finance sources to economic value added of pharmaceutical firms in Nigeria. To achieve this objective, the following specific objectives were to determine the effect of equity capital, debt finance, and retained earnings on economic value added of pharmaceutical firms in Nigeria.

## **II. Review of Related Literature**

### **2.1 Conceptual Framework**

#### **2.1.1 Equity Capital (EC)**

Businessjargons.com (2016) posted that equity capital alludes to that bit of the organization's capital, which is brought up in exchange for the portion of ownership in the company. These shares are called equity shares. Cambridge dictionary defined equity capital as that portion of a firm's capital that a company gets from selling shares rather than borrowing money. Common equity capital is the most effective loss-absorption financial instrument. However, the higher the equity capital requirements, the higher the social costs that come with it. Under Modigliani and Miller (1958) world of perfect capital markets, the economic value of firms should be independent of their financial structure so that higher equity capital ratios do not affect the cost of capital to the banks and consequently to their interest rates. However, in a more realistic world with taxes, bankruptcy, and agency costs, the capital structure does affect the economic value of the firms and, consequently, their interest rates.

#### **2.1.2 Debt Finance**

Debt is one of the two main ways companies can raise capital in the capital markets. It is a strategy for financing where an organization gets a loan and gives its guarantee to reimburse the loan. Debt capital can be hard to get, however for some organizations, it gives funding at lower rates than equity financing, particularly in times of generally low-interest rates. Another advantage to debt financing is the interest on the debt is tax-deductible (www.investopedia.com). Champion (1999) and Leibenstein (1966), opine that organizations can utilize more debt to upgrade their financial performance on account of debt's ability to make managers improve productivity to maintain a strategic distance from bankruptcy. The point here is that the debt must be repaid while dividend payment is not obligatory and can even be postponed if the firm is financially

hard up. Hovakimian, Opler, and Titman (2002) opine that the aggregate sum of debt an organization uses to finance their activities depends on the interest on the debt, company income taxes, and costs of bankruptcy. They went further to highlight that the lower the rate of interest on long-term debts, the higher will be the craving of a firm to settle on it; yet higher leverage increases the danger of financial distress. In the extreme, a firm may get itself unfit to meet its administration commitments and forced into bankruptcy by frustrated lenders. This regularly prompts substantial legal and administrative expenses.

### **2.1.3 Retained Earnings (RE)**

Retained earnings refer to the portion of the net earnings not paid out as dividends, but reserved by the firm for further investment in its core business or to settle financial obligations. It is recorded under shareholders' equity on the balance sheet ([www.investopedia.com](http://www.investopedia.com)). There are no cost for the transaction and no bankruptcy costs related to retained earnings (Altman, 1993). Subsequently, retained earnings comprise a significant source of finance for organizations. Payment of earnings as the dividend is related with agency cost and an open door for existing shareholders to reinvest their earnings for growth of the organization is lost. Droms (1990) posits that investors have more advantage from reinvested earnings than dividends over the long-run. As expressed by Harkavy (1953), profits reserved gives rise to the value of corporate securities. Earnings retained are one of the main sources of financing for profitability and growth of a firm.

### **2.1.4 Economic Value Added**

Economic Value Added is defined as net operating profit after taxes after the cost of capital (Tully, 1993). Capital includes cash, inventory, and receivables (working capital), plus equipment, computers and real estate. Economic Value Added (EVA) is a yardstick used to ascertain if a business is creating wealth for shareholders. EVA measures a company's ability to earn more than the true cost of capital.

$$\text{EVA} = \text{Net Operating Profit} - \text{Taxes} - \text{Cost of Capital}$$

## **2.2 Theoretical Framework**

The main purpose of this study is to evaluate empirically the effect of corporate financing mix on economic value added of pharmaceutical firms in Nigeria. In doing so, the study is theoretically underpinned on Pecking Order Theory by Myers & Majluf (1984) and Agency Theory by Jensen and Meckling (1976).

### **2.2.1 Pecking Order Theory**

The pecking order theory of capital structure goes in opposition to firms having a remarkable blend of debt and equity finance, which limit their cost of capital. The theory proposes that when a firm is searching for approaches to finance its drawn out business activities, it has an all-around order of preference for the sources of finance it employs. The theory posits that a firm's initial preference ought to be the usage of internal funds (retained earnings), followed by debt and then external equity. He argues that as firms become more profitable, they would have sufficient internal finance to undertake their investment projects, consequently, borrow less.

### **2.2.2 Agency Theory**

Jensen and Meckling (1976) suggested that for an optimal debt level in capital structure by minimizing the agency costs arising from the divergent interest of managers with shareholders and debt holders. They suggest that either ownership of the managers in the firm should be increased to align the interest of managers with that of the owners or users of debt should be motivated to control managers' tendency for excessive extra consumptions. Jensen (1986) posits that free-cash-flow of firms is accompanied by agency problem. He recommended that free cash flow issue can be another constrained by expanding the stake of managers in the business or by expanding debt in the capital structure, accordingly decreasing the measure of "free" cash accessible to managers.

Firms which are mostly financed by revenue reserve do not have to deal with transaction cost and bankruptcy costs. They do not have to pay interests or dividends for such funds, hence, this is the most sought after funding in corporate finance. This is in line with Pecking Order Theory, consequently, this study is anchored on Pecking Order Theory.

## **2.3 Empirical Review**

Nenu, Vintilă, and Gherghina (2018) examined the effect of capital structure on firm performance of Bucharest stock exchange-listed companies between 2000 and 2016. Using multiple regression techniques, the results showed that leverage is a positive relationship with firm size and the share price volatility.

Nassar (2016) examined the effect of capital structure on the financial performance of industrial firms in Turkey from 2005-2012. A multivariate regression technique was used for the study. The study observed that capital structure has a negative significant effect on firm performance.

Li and Wang (2019) examined the effect of capital structure on product-market competitiveness of Chinese firms. Using regression techniques, it was found that capital structure significantly affects product-market competitiveness of firms.

Nirajini and Priya (2013) examined the relationship between capital structure and performance of quoted companies in Sri Lanka. Correlation and regression techniques were used for analysis. They found that capital structure has a positive relationship with financial performance.

Abdul and Badmus (2017) ascertained the effect of leverage on the financial performance of chemicals and paints firms in Nigeria listed on the Nigerian Stock Exchange. Ordinary Least Square (OLS) techniques were used for data analysis. It was revealed that equity finance had a significant and positive effect on ROA while the debt ratio has a negative and insignificant effect on the performance measures.

Abubakar (2017) examined the impact of financial leverage on the financial performance of non-financial firms listed on the Nigerian Stock Exchange. Random Effects Model multiple regression techniques were used to test the hypotheses. The study revealed that total-debt equity ratio has a positive and significant effect on financial performance.

Kenn-Ndubuisi and Nweke (2019) evaluated the correlation between financial leverage and financial performance of 80 non-financial firms listed on the Nigerian Stock Exchange. Panel regression models were applied to test the stated hypotheses. The findings of the study revealed that earnings per share negatively and significantly correlated with debt to equity ratio.

Akani and Kenn-Ndubuisi (2017) examined the effect of capital structure and board structure on firm performance of listed companies in the Nigerian Stock Exchange (NSE) during the period between 2008 and 2016. Using a Vector Autoregression (VAR) test, it was revealed that a significant negative relationship exists between capital structures (debt-equity ratio) and financial performance measured by ROA and ROE.

Ogiriki, Andabai, and Bina (2018) examined the effect of financial leverage on corporate performance of Nigeria firms. Employing the Ordinary Least Square (OLS) analytical technique the study found that return on asset and return on equity had a positive and significant effect on the long-term debt.

John-Akamelu, Iyidiobi and Ezejiofor (2017) examined the effect of financial leverage on the financial performance of food-producing firms in Nigeria. Using a paired sample t-test analysis, it was revealed that financial leverage has no significant effect on the earnings per share of food-producing firms in Nigeria. However, financial leverage has a significant effect on return on equity and return on assets of these companies.

Adenugba, Ige and Kesinro (2016) examined the relationship between financial leverage and firms' value of firms listed on the Nigerian Stock Exchange. Ordinary Least Square (OLS) analytical technique was used to analyse the data extracted from the annual report and accounts of these firms. It was revealed that financial leverage has a strong relationship with firms' value.

Rehman (2013) investigated the association between financial leverage and financial performance of listed sugar companies in Pakistan. The results show that a positive relationship exists between the debt-equity ratio and return on asset and sales growth. However, a negative correlation exists between debt-equity ratio and net profit margin, earning per share, and return on equity.

Bassey, Edom, and Aganyi (2016) ascertained the impact of retained earnings on the performance of Niger Mills Company Ltd., Calabar, Nigeria. The study used Karl Pearson product-moment correlation coefficient. It was revealed that the future earnings capacity of the firm depends on its retained profit. It was also found that an increase in retained profit has the capacity of boosting future earnings the business.

Akinkoye and Akinadewo (2018) evaluated the relationship between retained earnings and the market value of firms in Nigeria during the period 2003 to 2014. Using multiple regression models, results show that retained earnings positively and significantly relates to earnings per share, dividend pay-out and value of firms.

Mulama (2015) examined the determinants of retained earnings in companies listed on the Nigeria Stock Exchange during the period between 2009 and 2012. The study employed a multiple regression analytical technique for data analysis. The study depicts that profitability and retained earnings have a positive and weak relationship. While the firm size and growth, opportunities have a negative and weak relationship with retained earnings.

Masood (2018) examined the determinants of retained earnings of steel companies in the steel sector of India. Multiple linear regression was used to analyse the panel data. Profit after tax and current ratio showed a positive and significant impact on retained earnings. Dividend paid and corporate tax showed a negative and significant impact on the retained earnings. Reserves, debt-equity ratio, investments, and cash flow showed a neutral and insignificant impact on retained earnings. The impact of variable CT on retained earnings is negative and is statistically not significant.

Masood (2017) the determinants of retained earnings of cement companies in India. Multiple linear regression was used for data analysis. Profit after tax, debt-equity ratio, and inventory has a positive and significant impact on retained earnings. Dividend paid negatively and significantly affect retained earnings.

Inyiama and Ugwuanyi (2015) examined the relationship between firm size and corporate retention of banks in Nigeria. Simple regression framework was applied in the study and correlation approach was adopted

in the analysis with an estimation of an error correction model. Firm Size positively but insignificantly affect retained earnings while the long-run coefficient shows that firm size positively and significantly affect retained earnings.

From the foregoing literature, it could be observed that the effect of corporate financing mix on economic value added of pharmaceutical firms in Nigeria is a research gap which this study attempts to fill.

### III. Methodology

#### 3.1 Research Design

The study adopted ex-post-facto (after the facts) research design. This is because the study was based on historical data. The study made use of secondary data. The data was extracted from the published audited annual report and accounts of the sampled pharmaceutical firms listed on the Nigerian Stock Exchange (NSE) for 2007 and 2016. The population of the study is the eleven pharmaceutical firms listed on the Nigeria Stock Exchange as of December 2019.

The model for this study was specified as follows:

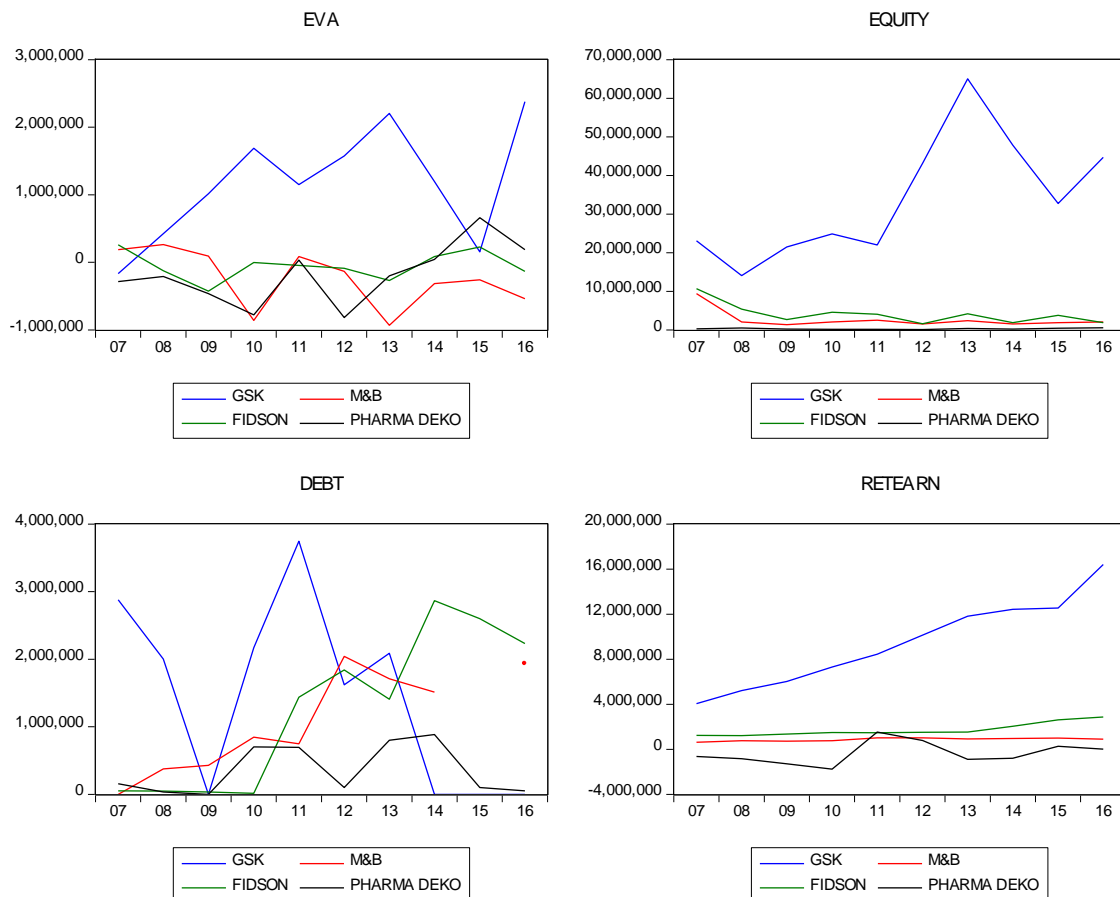
$$EVA_{t1} = \beta_0 + \beta_1 DEBT_t + \beta_2 EQUITY_t - \beta_3 RE_t + \varepsilon_t \text{ - [Equation (1)]}$$

Where,

EVA	Economic Value Added
DEBT	Debt Finance
EQUITY	Equity Capital
RE	Retained Earnings
$\varepsilon$	Stochastic disturbance (Error) Term
$\beta_0$	Coefficient (constant) to be estimated
$\beta_1 - \beta_5$	Parameters of the independent variables to be estimated
t	Current period

#### 4.1 Data Analysis

Figure 4.1: Panel Data Line Graph for the Focal and Explanatory Variables



Source: Eviews 9.0 Software

Figure 6 indicates a similarity in the pattern of movement of equity and retained earnings. Also, the graph indicates that there is a little resemblance in the pattern of movement between debt and economic value-added. The dissimilarity is the uphill movement in economic value added as compared to debt.

**Table 4.1.1 – Descriptive Statistic for the Focal and Explanatory Variables**

	EVA	EQUITY	DEBT	RETEARN
Mean	181983.2	10445172	1029131.	2964768.
Median	31290.00	2401000.	746899.0	1229448.
Maximum	2378000.	65055668	3745300.	16395081
Minimum	-934224.0	96532.00	0.000000	-1763533.
Std. Dev.	782172.8	16088126	1041591.	4395390.
Skewness	1.209678	1.858176	0.697523	1.545984
Kurtosis	4.092890	5.599656	2.456256	4.419767
Jarque-Bera	11.45250	33.42541	3.642945	18.81100
Probability	0.003259	0.000000	0.161787	0.000082
Sum	7097344.	4.07E+08	40136126	1.16E+08
Sum Sq. Dev.	2.32E+13	9.84E+15	4.12E+13	7.34E+14
Observations	40	40	40	40

Source: Eviews 9.0 Software

Table 4.1.1 shows that all the variables have skewness coefficient that is higher than one except DEBT. The same goes to Kurtosis values where all other variables except DEBT have a value that is significantly higher than 2. The P-value for EVA, EQUITY and RETEARN are significant, while that of DEBT is insignificant for Jarque-Bera statistics. This confirms a normal distribution for DEBT when the data are pooled for industry-level analysis.

**Table 4.1.2: Correlation Analysis**

	EVA	EQUITY	DEBT	RETEARN
EVA	1.000000	0.823079	0.111987	0.809969
EQUITY	0.823079	1.000000	0.112069	0.922987
DEBT	0.111987	0.112069	1.000000	0.144037
RETEARN	0.809969	0.922987	0.144037	1.000000

Source: Eviews 9.0 Software

Table 4.1.2 indicates that a strong and positive relationship exists between EVA, EQUITY and RETEARN. Meanwhile, DEBT has a positive and weak relationship with EVA. The strength of the relationship between EVA and the other variables is weakest between EVA and DEBT. This indicates that DEBT cannot be used to predict the economic value-added fluctuations of the Nigeria pharmaceutical industry.

**Table 4.2.3 - Regression Result**

Dependent Variable: EVA  
 Method: Panel Least Squares  
 Date: 11/19/20 Time: 13:37  
 Sample: 2007 2016  
 Periods included: 10  
 Cross-sections included: 4  
 Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EQUITY	0.024824	0.011820	2.100207	0.0430
DEBT	0.004586	0.070997	0.064595	0.9489
RETEARN	0.060117	0.043443	1.383796	0.1752
C	-260257.1	109698.3	-2.372480	0.0233
R-squared	0.694565	Mean dependent var		181983.2
Adjusted R-squared	0.668385	S.D. dependent var		782172.8
S.E. of regression	450422.6	Akaike info criterion		28.97067
Sum squared resid	7.10E+12	Schwarz criterion		29.14130
Log-likelihood	-560.9282	Hannan-Quinn criter.		29.03189

F-statistic	26.53018	Durbin-Watson stat	1.691140
Prob(F-statistic)	0.000000		

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**Source: Eviews 9.0 Software**

Table 4.2.3, indicates that a one-unit change in EQUITY, DEBT and RETEARN will increase EVA by 0.024824, 0.004586 and 0.060117 respectively. In summary, all the variables have influenced EVA positively. The extent of effect EQUITY has on EVA is significant, while the other explanatory variables insignificantly affect economic value added of pharmaceutical firms in Nigeria. The Durbin-Watson statistic is 1.691140 which is closer to 2 than 0. The Durbin Watson statistic result indicates an absence of serial autocorrelation in the panel data extracted from annual reports and accounts of sampled Pharmaceutical firms in Nigeria. The Adjusted R-squared is 0.668385. The adjusted R<sup>2</sup> reveals that about 67% of the variations in EVA could be explained by EQUITY, DEBT and RETEARN while about 33% could be explained by other factors capable of influencing EVA in Nigeria Pharmaceutical Industry; such as government influence through price regulation, as well as the error term and the unexplained variables.

**4.3 Test of Hypotheses**

- i. Hypotheses one states that equity capital does not positively and significantly affect economic value added of pharmaceutical firms in Nigeria.

**Decision Rule:** Reject H<sub>0</sub> if P-Value is less than a-value of 0.05.

**Decision:** Table 26 reveals a P-Value of 0.0430 which is less than a-value of 0.05; H<sub>0</sub> is therefore rejected in respect to the equity capital of pharmaceutical firms in Nigeria. This implies that equity capital significantly affects the economic value added of pharmaceutical firms in Nigeria.

- ii. Hypotheses two states that debt finance does not positively and significantly affect economic value added of pharmaceutical firms in Nigeria.

**Decision Rule:** Reject H<sub>0</sub> if P-Value is less than a-value of 0.05.

**Decision:** Table 27 reveals a P-Value of 0.9489 which is higher than a-value of 0.05; H<sub>0</sub> is therefore accepted with respect to debt finance of pharmaceutical firms in Nigeria. This implies that debt finance does not significantly affect the economic value added of pharmaceutical firms in Nigeria.

- iii. Hypotheses three states that retained earnings does not positively and significantly affect economic value added of pharmaceutical firms in Nigeria.

**Decision Rule:** Reject H<sub>0</sub> if P-Value is less than a-value of 0.05.

**Decision:** Table 28 reveals a P-Value of 0.1752 which is higher than a-value of 0.05; H<sub>0</sub> is therefore accepted in respect to retained earnings of pharmaceutical firms in Nigeria. This implies that retained earnings do not significantly affect the economic value added of pharmaceutical firms in Nigeria.

**4.4 Discussion of Findings**

**4.4.1 Hypotheses one:** This hypothesis states that equity capital does not significantly affect economic value added of pharmaceutical firms in Nigeria. From the result of the regression analysis in Table 4.2.3, equity capital affects economic value added positively and significantly in the tune of 0.0430. This is supported by the findings of Raheman (2007), Umar, Tanveer, Aslan and Sajid (2012) and Amdemikael (2012). On the other hand, Tian-Zeitun (2007) found a negative relationship between equity capital and firm's performance. The difference in result can be attributed to economy difference between Jordan and Nigeria.

**4.4.2 Hypotheses two:** This hypothesis states that debt finance does not significantly affect economic value added of pharmaceutical firms in Nigeria. From the result of the regression analysis in Table 4.2.3, debt financing affects economic value-added positively and insignificantly in the tune of 0.9489. Nirajini and Priya (2013), Olokoyo (2012), San and Heng (2011), Tayyaba (2013), Rafiq, Iqbal and Atiq (2008) and Gill, Amargit, Nahum and Neil (2011) all got the same result in their previous study on corporate finance sources. While Abdul (2010) and Sheilah and Wang (2010) found a negative relationship between debt finance and financial performance.

**4.4.3 Hypotheses three:** This hypothesis states that retained earnings do not significantly affect economic value added of pharmaceutical firms in Nigeria. The result of the regression analysis in Table 4.2.3 shows that retained earnings positively and insignificantly affects economic value added in the tune of 0.1752.

**5.1 The Findings are Summarized as follows:**

- i. Equity capital has a positive and significant effect on economic value added of pharmaceutical firms in Nigeria.
- ii. Debt finance has a positive and insignificant effect on economic value added of pharmaceutical firms in Nigeria.

- iii. Retained earnings has a positive and insignificant effect on economic value added of pharmaceutical firms in Nigeria.

## 5.2 Conclusion

The purpose of establishing a company is to create value and wealth for its owners. The major task facing any manager of an organization is the strategies of meeting the goal of the shareholders, which is economic value creation that will reflect in higher dividend earned. Hence, the management of a company will seek for the best finance source that will help in maximizing the wealth of its shareholders. Meanwhile, Modigliani and Miller in Irrelevance and Relevant Theory argued that the value of a company should depend on the return and risks of its operation and not on the way it finances those operations. He appealed that, capital structure decisions of firms with both corporate and personal taxes circumstances are irrelevant. This puzzle on the relevance of finance sources on economic value added brought about this study.

It was revealed in the data analysis that equity capital, debt finance and retained earnings have a positive effect on economic value added. The strength of the effect equity capital has on economic value added is significant, while debt finance has an insignificant effect on economic value added of pharmaceutical firms in Nigeria. The extent of the effect these variables: equity capital, long term debt and retained earnings have on economic value added is only up at 68%. The remainder can be explained by other variables not studied.

## 5.3 Recommendations

The following recommendations are made by the researcher:

- (i) Firms in Nigeria pharmaceutical industry should strive to increase the market value of their ordinary shares. This is because the use of equity capital as a corporate finance source affects economic value added positively.
- (ii) Despite the insignificant effect it has on economic value added, borrowing should be encouraged in the industry because it has a positive effect on the value added to the shareholders' finance.
- (iii) Pharmaceutical firms should increase their general reserves since its effect on economic value added is positive though insignificant. They should strike an equilibrium between dividend payout and earnings retention.

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