

## Effect of Financing Mix on Financial Performance of Health Care Firms in Nigeria

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### **Abstract**

*This work empirically investigated the effect of financing mix on financial performance of firms. The study is vital as it portrays the extent to which financing mix influences firms' performance. In order to determine the relationship between financing mix and firm's performance, some key proxy variables were used in the study, namely Equity Financing, Debt Financing, Debt Equity Financing and Preferred Stock Financing; firms' performance is however represented by ROE. Four hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using multiple regression model. The research design used is Ex Post Facto design and data for the study were obtained from the published annual financial reports of the entire 9 firms listed under health care sector of NSE with data spanning from 2014-2018. The findings generally indicate that equity financing, debt financing and debt equity financing have significantly influenced firms' performance. Preferred stock financing was found negatively and insignificantly related with firms' performance. Based on this, the study concludes that financing mix of firms have exerted significant influence on firms performance over the years. The study however suggests that firms should always thrive to attain that optimal mix in order to achieve the overall objective of the organization.*

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**Keyword:** Financing Mix; Financial Performance; Equity Financing; Debt Financing; Debt-Equity Financing

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### **1.0 Introduction**

Financing mix is one of the hotly debated finance topics or theories among the studies of researchers and scholars. Its importance derives from the fact that capital structure is closely related to the ability of firms to fulfill the needs of various stakeholders. Financing mix represents the major claims on firm's assets. This includes the different types of both equities and liabilities (Uremadu and Efobi, 2012). An appropriate capital structure is important not only because of the need for survival and growth or maximizing returns of business organizations, but also because of the impact of such decision on firm's ability to deal with its competitive environment.

A firm's financing mix refers to the mix of its financial liabilities. It has been an important issue from the strategic management standpoint since it is linked with a firm's ability to meet

the demands of various stakeholders as stated elsewhere already in this work. Financing mix is the most significant discipline of company's operations. It's a decision is a vital decision with great implication for the firm's sustainability (Amordi 2015).

According to Chechet and Olayiwola (2014) whether a business is newly born or it is ongoing, it requires fund to carry out its activities. This fund is referred to as capital. Capital therefore refers to the means of funding a business. Two major sources are available for firms willing to raise funds for their activities. These sources are internal and external sources. Internal sources refer to funds generated from within an enterprise; external sources refer to funds generated from outside the entity. External funding may be by increasing the number of co-owners of a business or by outright borrowing in form of loan, or the, issuance of debentures, bonds or other forms of debt instruments. Financial managers are however concerned with the determination of the best financing mix; i.e., the optimum combination of debts and equity available to the firm.

The literature on financing mix of corporate organizations both in developed and developing nations have been a bone of contention amongst researchers which calls for further expansion of knowledge on the issue. Financing and investment are two major decision areas in a firm. In the financing decision the manager is concerned with determining the best financing mix or capital structure for his/her firm. Capital structure decision is the mix of debt and equity that a company uses to finance its business. It is the way a company finances its assets through the mixture of equity, debt or hybrid securities (Damodaran, 2011).

In both developed and developing countries, there has been an argument on the effect of financing mix of a firm on firm's performance (Nwankwo, 2014). A lot of research has been done on this subject in the past but most have focused more on developed economies, and sparse literature is available from the developing countries. More so, the impact of financing mix on corporate performance in Nigeria has been a bone of contention amongst researchers. For instance; Muritala (2012) carried out a similar research and was in support of more of equity financing as against debt financing. This is contrary to the study of Aribiyan and Safari (2017) who found positive association between debt financing and financial performance of firms. etc

According to Akeem (2014) financial constraints have been a major factor affecting corporate firms' performance in developing countries especially Nigeria. The basis for the determination of optimal capital structure of corporate sectors in Nigeria is the widening and deepening of various financial markets.

Despite active theoretical and empirical research, what determines corporate performance in regards to companies financing mix remains an empirical question in corporate finance. Thus, theory provides conflicting predictions on whether debt or equity or optimal use of both promotes firm performance which calls for further investigation and clarifications.

So also after over half a century of studies on this important topic, economists and financial experts have not reached an agreement on how and to which extent corporate firms' financing mix impacts on their performance and more importantly, no study had concentrated on health care sector of Nigerian Stock Exchange.

Based on these observations, the present study research will however contribute to the body of knowledge by examining the impact of financing mix decisions on firm's performance in the health care sector of the Nigerian economy through the use of current data.

### **1.1 Objective of the Study**

In order to direct the flow of this study, the following hypotheses were formulated

**H<sub>01</sub>:** Equity financing has no significant effect on financial performance of firms

**H<sub>02</sub>:** Debt financing has no significant effect on financial performance of firms

**H<sub>03</sub>:** Debt equity financing has no significant effect on financial performance of firms

**H<sub>04</sub>:** Preferred stock financing has no significant effect on financial performance of firms

## **2.0 Review of Related Literature**

### **2.1.1 The Concept of Financing Mix**

Financing mix is a part of the financial structure and refers to the proportion of the various long-term sources of financing. It is concerned with making the array of the sources of the funds in a proper manner, which is in relative magnitude and proportion. Designing a proper capital structure maximizes value, minimizes cost, increase share price and provides investment opportunities. Capital structure is essentially concerned with how the firm decides to divide its cash flows into two broad components, a fixed component that is earmarked to meet the obligations toward debt capital and a residual component that belongs to equity shareholders (Chandra, 2011). Therefore, a firm's capital structure is described as the capital mix of both equity and debt capital in financing its assets.

According to Akeem (2014) financing mix is the combination of the debt and equity structure of a company. It can also be referred to as the way a corporation finances its assets through some combination of equity, debt or hybrid securities; that is the combination of both equity and debt. However, not all business firms use a standardized capital structure hence they differ in their financial decisions under various terms and conditions. It is therefore a difficult situation for these firms to determine the financing mix in which risk and costs are minimum and that can raise the value of shareholder wealth and or maximize profits (Uremadu & Efobi, 2012).

The study of Obonyo (2017), measured financing mix using the index of Debt financing (DF), Ubesie (2016) measured financing mix using the index of Equity Financing (EF), Elena, Georgeta and Stefan (2018) measured financing mix using the index debt equity financing, Osuji and Odita (2012) measured financing mix using the index using the index of preferred stock financing (PSF) and Nwude and Anyalechi (2018) measured financing mix using the index using the index of equity financing (EF), debt financing (DF) and debt equity financing (DEF)

For the purpose of this research, the following financing mix Indexes were used. Thus refers to equity financing (EF), debt financing (DF), debt equity financing (DEF) and preferred stock financing (PSF)

#### **2.1.1.1 Equity Financing**

Equity financing is the process of raising capital through the sale of shares in a company. Equity financing involves not just the sale of common equity, but also the sale of other equity or quasi-equity instruments such as preferred stock, convertible preferred stock and equity units that include common shares and warrants. With equity financing, companies have less burden of repaying loans, issues associated with credit worthiness are gone however owners of the company losses control, share profits and potential conflict may arise (Erikie and Osagie 2017). In this manner, financing mix of firms' is the capital mix of equity and capital utilized as a part of financing its operations and assets acquisition. Be that as it may, most essential and complex issues in corporate fund is that whether there exist ideal capital structure or not.

Equity financing was measured using equity ratio as used by Nwude and Anyalechi (2018). This is expressed as equity/assets.

#### **2.1.1.2 Debt Financing**

According to Ubesie (2016), debt financing arises when an organization raises money for working capital or capital disbursements by selling corporate bonds, trade bills or notes to individuals and/or institutional investors , In return for lending the money, the individuals or

institutions become creditors and receive a promise the principal and interest on the debt will be repaid.

Debt financing can be challenging to obtain, but for many firms, it offers funding at lower rates than equity financing, specifically in periods of historically low interest rates. Another advantage to debt financing is the interest on debt is tax deductible (Obonyo, 2017).

Debt financing was measured using debt ratio as used by Obonyo (2017), which is expressed as debt/assets.

### **2.1.1.3 Debt Equity Financing**

A firm's debt equity financing refers to the mix of its financial liabilities. It has been an important issue from the strategic management standpoint since it is linked with a firm's ability to meet the demands of various stakeholders as stated elsewhere already in this work. Financing mix is the most significant discipline of company's operations. It's a decision is a vital decision with great implication for the firm's sustainability (Amordi 2015).

Financing and investment are two major decision areas in a firm. In the financing decision the manager is concerned with determining the best financing mix or capital structure for his/her firm. Capital structure decision is the mix of debt and equity that a company uses to finance its business (Damodaran, 2011).

Debt equity financing was measured using debt equity ratio as used by Nwude and Anyalechi (2018) which is expressed as debt/equity

### **2.1.1.4 Preferred Stock Financing**

Preferred stock (also called preferred shares, preference shares or simply preferreds) is a form of stock which may have any combination of features not possessed by common stock including properties of both an equity and a debt instrument, and is generally considered a hybrid instrument. Preferred stocks are senior (i.e., higher ranking) to common stock, but subordinate to bonds in terms of claim (or rights to their share of the assets of the company) and may have priority over common stock (ordinary shares) in the payment of dividends and upon liquidation. Terms of the preferred stock are described in the issuing company's articles of association or articles of incorporation (Osuji and Odita 2018)

According to Nwude and Anyalechi (2018), a preferred stock may be likened to a bond with an infinite maturity. As with a bond, the rate of income is fixed and so can never increase

Preferred stock financing was measured using preferred stock ratio as used Osuji and Odita (2012) which is expressed as preferred stock or preference shares/assets

## **2.1.2 The Concept of Financial Performance**

According to Erikie and Osagie (2017), financial Performance is the measuring of results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added, etc

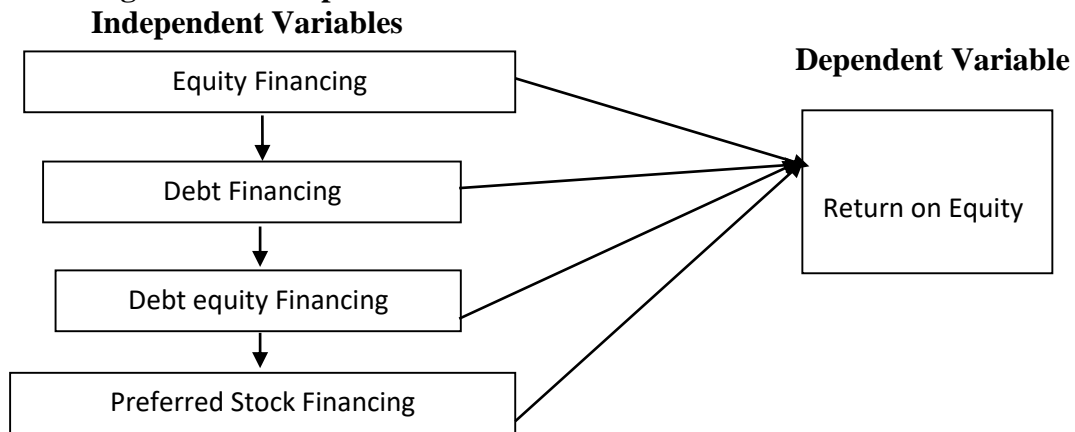
Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. In the words of Frich (2013) argues that performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like. Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm's success, conditions, and compliance.

A firm's performance is a measure of how well it generates revenues from its primary mode of business. There are a multitude of measures used to assess a firm's performance, with each group of stakeholders having its own focus of interest (Dev and Rao, 2016).

Financial performance was measured using return on equity as used in the prior expectations of Nwude and Anyalechi (2018), Osuji and Odita (2012) etc

However, for the purpose of this study, return on equity was used and was measured by NPAT/EQUITY as used by (Nwude and Anyalechi, 2018).

### 2.1.3 The Diagram of Conceptual Framework



Source: Researcher's Concept (2020)

## 2.2 Theoretical Framework

The issue of financing mix has been a contentious matter in the literature. The issue of whether to use more debt or less of equity in company's capital structure is not settled. There are certain theories that form the backbone of the financing mix or capital structure theory.

### 2.2.1 The Irrelevance Theory of Capital Structure

The relevance of capital structure theory to firm performance was first stressed by Modigliani and Miller (1958). The theory states that the decision about company's capital structure is irrelevant to the value of the firm in the absence of bankruptcy costs, asymmetric information, transactions cost, absence of taxes and in an efficient market with homogeneous expectations. According to the MM theorem, capital structure theories function under perfect market and that the finances of a firm are not related to its value in perfect market. The real world however does not operate on the assumptions pointed out by the MM theorem. This brought about a new research named the static trade-off theory which focused on the relationship between capital structure theories and firm performance. According to the static tradeoff theory, the choice of a firm concerning the usage of debt finance or equity finance is based on the cost benefits related with each source of funds. The utilisation of debt can have the advantage tax saving and bankruptcy cost. Therefore in deciding the optimal capital structure, the company must strike a balance between the cost and benefits linked with each source.

### 2.2.2 The Perking Order Theory

Another group of financing mix theories is the pecking order theory propounded by Graham and Harvey in the year 2001. This theory stated that companies prefer internal financing (income, amortization) and only in a situation when internal cash flow is insufficient for activity financing, they reach for foreign capital (loans, credits). To serve as a last resort, companies launch own external financing, for instance conducting shares issuance. The theory is in support of the relevance of the capital structure. The theory advocates that the capital



structures of firms are optimal and they move in the direction of the target. The theory also opines that when debt is utilised in capital structure, firms have the challenges of tax benefit and bankruptcy cost. Therefore, this calls for a trade-off amongst the two.

### **2.2.3 The Agency Theory**

The agency theory is also one of the capital structure theories it was propounded in the year 1976 by Jensen and Meckling (1976). It explains the relationship between the principal and the agent in the decision making process concerning the combination of capital structure of the firm. According to Jensen and Meckling (1976), the agency problem between principal and agent is multifaceted and it plays a crucial role in making decision about the optimal capital structure in a firm.

The study is however based and anchored on perking theory as the theory explains and balances the cost benefit analysis associated with financing mix of a firm.

### **2.3 Empirical Review**

Literatures which examine the relationship between firm performance and debt-equity mix have yielded various results. While some have shown positive relation between financing decisions and profitability, others have shown negative relationship.

Efobi (2008) examines the impact of capital structure on corporate execution in Nigeria utilizing some selected organizations for a long time (2002-2005) and with the adoption of Pearson's correlation coefficient and OLS regression model on a pooled data. The study discovered that proportion of long-term debt to equity affects return on capital utilized (ROCE). They suggest that managers ought to guarantee appropriate administration of capital structure composition particularly as it identifies with long term debt and values including corporates administrations.

Aribiyan and Safari (2017) examine the effect of capital structure on performance from 2001 to 2007. Having explored multiple regression, their results show a positive relationship between short term and total debts and performance (ROE) while long- term debts and performance (ROE) are negatively related.

Ebaid (2009) on effect of capital structure choice on performance of firms from 1997 to 2005 in the Egyptian market. The accounting based measures of ROA, ROE and gross profit margin were used and the study concludes that capital structure generally has a weak impact on firm performance.

Aburub (2012) examine the effect of capital structure on firm performance of listed firms on Palestine Stock Exchange. In the study, five parameters consisting return on assets (ROA), return on equity (ROE), Earnings Per Share (EPS), market to book value of equity ratio (MVB) and Tobin Q ratio were used as the accounting firm performance measures and also as dependent variable. While four measures of short- term debt to total assets ratio (SDTA), long-term debt to total assets ratio (LDTA), total debts to total equity ratio (TDTQ) were used as the measures of capital structure and also as independent variables. The study explored regression model and the result shows that capital structure has a positive impact on performance measure of evaluation.

Antwi and Zhao (2012) used cross-sectional data on some selected quoted firms in Ghana and using OLS their result shows that component of capital structure (i.e. equity capital) is important to the firm value. Long- term debt as the key determinant of firms value, and is discovered to have more impact than equity capital.

Babalola (2012) assesses the impact of capital structure on firm performance using 10 firms over the period of 10 years spanning from 2001-2009. He measures performance in a quadratic

function, whereby performance forms the non-linear function of capital structure, as proxy by leverage ratio. The finding supports trade off theory in another dimension.

In another study conducted by Ganiyu and Babalola (2012), performance was measured by return on Assets in order to determination of capital structure effect, and the result using regression model rates that capital structure of a firm has significant impact on company's performance

Muritala (2012), in his effort to analyse capital structure on firms' performance in Nigeria, used unit root test and found that all variables used were non-y at all level. The study proposes that negative relationship exist between capital structure and firm performance. Data analyzed using panel least square confirm that asset turnover, age, tangibility and firm size are positively related to firm's financial performance.

In Sri Lanka, Leon (2013) studies the effect of capital structure of firms' performance examining listed manufacturing firms, using five years data from financial reports and accounts. Leon employs ROE and ROA to measure the performance and explored regression model, the findings indicates that there is an existence of significant relationship between performance and leverage.

Eriki and Omorokunwa (2014) examine the effect of capital structure on bank's performance in Nigeria using key variables such as return on assets (ROA) and return on equity (ROE), leverage, interest on debt, tax liabilities and market turnover of the selected banks in Nigeria from 2003 to 2012. Their findings show that a bank's capital structure or leverage has a significant positive effect on its return on capital employed and its return on equity. Also bank leverage has a significant negative impact on its return on asset.

El-Maude, Ahmed and Ahmed (2016) investigate the impact of capital structure on financial performance of firms in Nigerian cement industry, taking a sample of four listed companies. Descriptive statistics, correlation and regression were used for analyzing the data. The study reveals "that, there is a statistically significant effect between long and short term liability on Return on Assets (ROA) and Return on Equity (ROE).The study concluded that the performance of companies in the cement industry is not optimised as a result of their inability to utilised debts in their capital structures.

Mesquita and Lara (2003) examine the interaction between capital structure and profitability of some Brazilian firms using regression model. They affirm that, difficult decision exist as organizations receive debt or equity and this decision gets to be difficult when an organization is working in an environment that is precarious and this situation is common to Brazil. They also examine the effect of short and long term financing on return on equity. Thus, they conclude that in the short run, inverse relationship exists between debt and profitability even though they fail to show how significant the relationship is and direction of impact.

The study by Abor (2005) on capital structure influence on firms' performance of listed companies in Ghana Stock Exchange during a five-year period. He observed that there exist significant positive relationship between short term debt to asset (SDA) and return on equity (ROE) and reveals that firms whose earnings are much use short term debt to finance their business. In other words, short term debt is an important and basic source of financing largely adopted by Ghanaian companies as it represents 85 percent of total debt financing. Yet, result reveals an adverse relation between long term debt to assets and return on equity. The regression results reveal that there exist positive relationship between DA and ROE which measured the relationship between total debt and profitability. Thus indicating that higher earning firms depend on debt as their key financing option

According to Chandrasekharan (2012), who conducted a study on some selected firms listed on the Nigeria stock exchange for a period of five years (2007- 2011) from static trade-off, agency and pecking order theory point of view. He employed the panel multiple regression

analysis and the study reveals that for the Nigerian listed firms; firms' size, growth and age are significant with the debt ratio of the firm, whereas, profitability and tangibility are not.

Babalola (2014), using Kruskal Wallis as a statistical tool with audited financial statements for a period of fourteen years (1999-2012) from static trade-off point of view. He employed the triangulation analysis and the study revealed that capital structure is a trade-off between the costs and benefits of debt, and it has been refuted that large firms are more inclined to retain higher performance than middle firms under the same level debt ratio.

Akinyomi (2013), using three manufacturing companies selected randomly from the food and beverage categories and a period of five years (2007-2011) 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.

Taiwo (2012), using some selected firms listed on the Nigerian Stock Exchange for a period of five years (2006-2010) with statistical tool of regression model revealed that the sampled firms were not able to utilize the fixed asset composition of their total assets judiciously to impact positively on their firms' performance.

Bassey, Aniekan, Ikpe and Udo (2013), on effect of debt equity financing on firms performance explored test tool of Ordinary Least Square regression and descriptive statistics and revealed that only growth and educational level of firms owners were significant determinants of both long and short term debt ratios, assets structure, age of the firms, gender of owners and export status impacted significantly on long term debt ratios, while business risk, size and profitability of firms were major determinants of short term debt ratio for the firms under investigation.

Simon-Oke and Afolabi (2011) 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.

Magara (2012) did a study on capital structure and its determinants at the Nairobi Securities Exchange. The study sought to find out the major determinants of capital structure. It was established that from the period 2007 to 2011, there was a positive significant relationship between the firm size, tangibility and growth rate and the degree of leverage of the firm using regression model. The study did not take into consideration macro- economic factors like inflation and interest rates.

Mwangi (2010) did a study on capital structure on firms listed at the Nairobi Stock Exchange also tried to look on the relationship between capital structure and financial performance. Data was collected using structured questionnaires. The study used OLS and identified that a strong positive relationship between leverage and return on equity, liquidity, and return on investment existed

#### **2.4: Summary of Empirical Literature**

In both developed and developing countries, there has been an argument on the effect of financing mix of a firm on firm's performance (Nwankwo, 2014). A lot of research has been done on this subject in the past but most have focused more on developed economies, and sparse literature is available from the developing countries. More so, the impact of financing mix on corporate performance in Nigeria has been a bone of contention amongst researchers. For instance; Muritala (2012) carried out a similar research and was in support of more of



equity financing as against debt financing. This is contrary to the study of Aribiyan and Safari (2017) who found positive association between debt financing and financial performance of firms.

Despite active theoretical and empirical research, what determines corporate performance in regards to companies financing mix remains an empirical question in corporate finance. Thus, theory provides conflicting predictions on whether debt or equity or optimal use of both promotes firm performance which calls for further investigation and clarifications.

So also after over half a century of studies on this important topic, economists and financial experts have not reached an agreement on how and to which extent corporate firms' financing mix impacts on their performance and more importantly, no study had concentrated on health care sector on Nigerian Stock Exchange.

Based on these observations, the present study research will however contribute to the body of knowledge by examining the impact of financing mix decisions on firm's performance in the health care sector of the Nigerian economy through the use of current data

### **3.0 Methodology**

This study adopts ex-post facto design. This was used as it envisages the effect of independent variables (EF, DF, DEF and PSF) on the dependent variable (ROE) using already existed data. The population of the study consists of all the firms quoted under health care sector of NSE as at 2020 business list spanning from 2015-2019. It includes; (Ekocorp Plc, Evans Medical Plc, Fidson Health Care Plc, Glaxo Smithkline Consumer Nig Plc, May and Baker Nig Plc, Morison Industries Plc, Neimeth International Pharmaceutical Plc, Nigeria German Chemicals Plc, Pharma Deko Plc and Union Diagnostics and Clinical services Plc).

The study used secondary sources which are quantitative in nature. The data were obtained from the annual reports and accounts of the health care sector firms. The technique of data analysis employed in this study is the multiple regression analysis. The data was analyzed using SPSS V. 20 statistical package, and the outcome was used to test the hypothesis formulated for the study after conducting necessary tests. Various robustness tests such as test for multicollinearity between the independent variables were carried out to improve the validity of the results obtained.

### **3.1 Operationalization and Measurement of Variables**

#### **3.1.1 Dependent Variable**

The dependent variable in this study is Firms' Financial Performance and it was proxy or measured using the logarithm of ROE. This is in harmony with the works of Nwude and Anyalebechi (2018)

#### **3.1.2 Independent Variable**

The independent variable for the study (financing mix) was proxy using equity financing (EF) as used by Nwude and Anyalechi (2018), debt financing (DF) as used by Obonyo (2017), debt equity financing (DEF) as used by Nwude and Anyalechi (2018) and preferred stock financing (PSF) as used by Osuji and Odita (2012).

The independent variables are therefore measured as follows:

##### **3.1.2.1 Equity Financing (EF)**

Equity financing was measured using equity ratio expressed as equity/total assets as used by Nwude and Anyalechi (2018).

### 3.1.2.2 Debt Financing (DF)

Debt financing was measured using debt ratio expressed as total debts/total assets as used by Obonyo (2017).

### 3.1.2.3 Debt Equity Financing (DEF)

Debt equity financing was measured using debt equity ratio expressed as debt/equity as used by Nwude and Anyalechi (2018).

### 3.1.2.4 Preferred Stock Financing (PSF)

Preferred stock financing was measured using preferred stock ratio expressed as preferred stock/total assets as used by Osuji and Odita (2012).

## 3.2 Model Specification

In line with the previous researches, the researcher adapted and modified the Model of Nwude and Anyalechi (2018) and Osuji and Odita (2012).in determining the effect of financing mix on financial performance of firms. This is shown below as thus:

$$\text{Nwude and Anyalechi (2018): ROE} = \beta_0 + \beta_1 \text{EF} + \beta_1 \text{DEF} + \mu \text{-----1}$$

$$\text{Obonyo (2017): ROA} = \beta_0 + \beta_1 \text{DF} + \mu \text{-----11}$$

Where

ROE = Return on Equity

ROA = Return on Assets

EF = Equity Financing

DEF = Debt Equity Financing

DF = Debt Financing

The explicit form of the regression modified for this study is expressed as thus:

$$\text{ROE}_t = \beta_0 + \beta_1 \text{EF}_t + \beta_2 \text{DEF}_t + \beta_3 \text{DF}_t + \beta_4 \text{PSF}_{it} + \mu \text{-----111}$$

Where; PSF = Preferred Stock Financing

**Decision Rule:** accept Ho if P-value > 5% significant level otherwise reject Ho

## 4.0: Results and Discussion

This section presents the results from the analysis of data and its interpretation

**Table 1: Descriptive Statistics**

	Mean	Std. Deviation	N
ROE	.1233	.73952	45
Debt Ratio	.4497	.27438	45
Equity Ratio	.5694	.22258	45
Debt Equity Ratio	.5926	2.53763	45
Preferred Stock Ratio	.2444	.85694	45

**Source:** SPSS Computational Results (2020).

In an effort to establish and ascertain whether or not multi-collinearity exists as a result of the correlation between variables, table 1 is incorporated for such purpose.

**Table 2: Collinearity Statistics**

Tolerance Value	VIF
.273	3.659
.258	3.869
.914	1.095
.951	1.052

Source: SPSS Computational Results (2020).

From the table above TV ranges from 0.273 to 0.951 which suggests non multi-collinearity feature. According to Sabo, Rabi, Usman, Fatima, and Tjjani (2015) exists when the value of TV is less than 0.20 or where VIF exceeds 10 i.e  $VIF > 10$

### Test of Hypotheses

**H<sub>01</sub>:** Equity financing has no significant effect on financial performance of firms

**H<sub>02</sub>:** Debt financing has no significant effect on financial performance of firms

**H<sub>03</sub>:** Debt equity financing has no significant effect on financial performance of firms

**H<sub>04</sub>:** Preferred stock financing has no significant effect on financial performance of firms

**Model:**  $ROE_t = \beta_0 + \beta_1 EF_t + \beta_2 DEF_t + \beta_3 DF_t + \beta_4 PSF_{it} + \mu$

**Decision Rule:** accept  $H_0$  if P-value > 5% significant level otherwise reject  $H_0$

**Table 3: Result on Effect of Financing Mix on Financial Performance of Firms**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.531	.223		2.381	.022		
	Debt Ratio	.183	.196	.068	.931	.037	.273	3.659
	Equity Ratio	.261	.249	.169	2.256	.030	.258	3.869
	Debt Equity Ratio	.561	.012	.897	1.529	.000	.914	1.095
	Preferred Stock Ratio	-.062	.034	-.072	-1.849	.072	.951	1.052

a. Dependent Variable: ROE

$R^2$  0.942, Adjusted  $R^2$  0.936, Prob (F-statistics) 0.000, F Stat 162.564, Durbin-Watson Stat 2.090

Source: SPSS Computational Results (2020).

The coefficient of determination  $R^2$  shows 0.942 indicating that the overall model explained 94.2 percent of the total variations in the dependent variable. Thus shows that these variables (EF, DF, DEF & PSF) can only explain 94.2 percent of change in firms' Return on Equity leaving 5.8 percent unexplained. This is to say that there are other determinants of financing mix of firms' other than that of equity financing, debt financing, debt equity financing and preferred stock financing

The sig. (or p-value) is .000 which is below the .05 level; hence, we conclude that the overall model is statistically significant, or that the variables have a combined or joint effect on the

dependent variable. With this, the researcher affirms the validity of the regression model adopted in this study.

#### **4.1: Discussion of Findings.**

The results of the regression are therefore slated below as follows:

**H<sub>01</sub>:** Equity financing has no significant effect on financial performance of firms

This hypothesis was tested and the result of this regression indicates that the relationship between EF and ROE is positive and significant; this can be justified with the P-value (significance) of 0.030 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.261 is proving that, an increase in EF while other remaining variables remain constant increases firms' ROE. Thus implies that equity financial is beneficial to firms. We therefore rejected null hypothesis and accepted alternate hypotheses which contends that corporate firms' EF has significant impact on firms' financial performance.

This observation is in agreement with the findings of Efobi (2008) and Ganiyu and Babalola (2012), whose studies were carried out in Nigeria respectively. Efobi (2008) and Ganiyu and Babalola (201) noted that equity financing has influenced firms performance positively over the years

**H<sub>02</sub>:** Debt financing has no significant effect on financial performance of firms

This hypothesis was tested and the result of this regression indicates that the relationship between DF and ROE is positive and significant; this can be justified with the P-value (significance) of 0.037 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.183 is proving that, an increase in DF while other remaining variables remain constant increases firms' ROE. We therefore rejected null hypothesis and accepted alternate hypotheses which contends that debt financing has significant effect on financial performance of firms

This is in tandem with the study of Antwi and Zhao (2012) carried out in Ghana who found debt financing to have more significant impact than equity financing. This is also seems agreeable with the findings of Mesquita and Lara (2003) in Brazil who found significant positive association between debt financing and firms performance.

**H<sub>03</sub>:** Debt equity financing has no significant effect on financial performance of firms

This hypothesis was tested and the result of this regression indicates that the relationship between DEF and ROE is positive and significant; this can be justified with the P-value (significance) of 0.000 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.561 is proving that, an increase in DEF while other remaining variables remain constant increases firms' ROE. Thus implies that firm's debt equity financing has the highest level of influence on firm's performance. We therefore rejected null hypothesis and accepted alternate hypotheses which contends that debt equity financing has significant effect on financial performance of firms

This agrees with the status quo of Muritala (2012) who argues that debt equity financing of firms is positively associated with the firms performance. This disagrees with the Simon-Oke and Afolabi (2011) who noted negative association between debt equity financing and firms performance in Nigeria.

**H<sub>04</sub>:** Preferred stock financing has no significant effect on financial performance of firms

This hypothesis was tested and the result of this regression indicates that the relationship between PSF and ROE is negative and insignificant; this can be justified with the P-value (significance) of 0.072 which is less than the 5% level of significance adopted. Likewise the result of negative coefficient of -.062 shows inverse relationship between PSF and firms ROE. Thus implies that firms should not have positive disposition towards preferred stock financing

as it has negatively impacted firms' performance over the years. We therefore rejected alternate hypothesis and accepted null hypotheses which contends that preferred stock financing has no significant effect on financial performance of firms

This is in agreement with the priori expectations of Osuji and Oditia (2012) who found insignificant negative relationship was found between preferred stock financing and firms' profitability

## 5.0 Conclusion

This study notes that among the four categories of financing mix of firms (EF, DF, DEF & PSF) that were examined, Debt equity financing (DEF) has the highest influence on firms' performance followed by Equity financing (EF), Debt financing (DF) and Preferred stock financing (PSF).

The study having developed a model fit on financing mix using (EF, DF, DEF & PSF), the study captured that (EF, DF, DEF) have joint effect on firms financial performance. Based on this, the study concludes that financing mix of firms have exerted significant influence on firms' financial performance over the years.

### 5.1: Recommendations

Based on the findings of research, the following recommendations were made:

1. Firms should try to finance their investment activities with retained earnings and use debt as a last option as this is consistent with the pecking order theory, which states that there is a hierarchy in choosing sources of financing. A firm will prefer to use internal financing than external financing. The internal financing is from the retained earnings that are earned by doing operational activities
2. Managers should use debts as a source of finance since a positive impact existed between the financing mix and corporate firm's performance in Nigerian investment climate. However, a prudent management of corporate debts has prospects of increasing returns in future.
3. Firms should try to finance their investment activities with debts and equity and consider either debt or equity as a last option. Thus implies that, the study strongly recommends that corporate firms in Nigeria should use more of debt equity capital than either debt or equity capital in financing their business activities.
4. Firms should be careful in using preferred stock financing as a source of finance since a negative impact existed between the financing mix and corporate firm's performance in Nigerian investment climate.

### 5.4: Contribution to Knowledge

The study adapted and modified the Models of Nwude and Anyalechi (2018) and Obonyo (2017) in order to develop a model fit on financing mix of firms so as to capture the joint effect of these variables (EF, DF, DEF & PSF) on performance of firms listed on health care sector of NSE where no study had concentrated. The adapted models are shown below as thus:

Nwude and Anyalechi (2018):  $ROE = \beta_0 + \beta_1 EF + \beta_1 DEF + \mu$  -----1

Obonyo (2017):  $ROA = \beta_0 + \beta_1 DF + \mu$  -----11

The explicit form of the regression modified for this study is expressed as thus:

$ROE_t = \beta_0 + \beta_1 EF_t + \beta_2 DEF_t + \beta_3 DF_t + \beta_4 PSF_{it} + \mu$

$ROE_{it} = \beta_0 + \beta_1 EF_{it} (0.261\{0.030\}) + \beta_2 DEF_{it} (0.561\{0.000\}) + \beta_3 DF_{it} (0.183\{0.037\}) + \beta_4 PSF_{it} (-0.62\{0.072\}) + \mu$

By this implication, the study asserts that the overall model is statistically significant. The variables (EF, DF, DEF and PSF) have significant effect on the dependent variable (ROE).



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