

**RESEARCH ARTICLE****Effect of Corporate Financing on Shareholder's Value Maximization of Nigerian Pharmaceutical Sector**Ugwuene, R. N.¹; Prof. Okwo, M. I.² & Prof. Ubesie, M. C.³¹⁻³Department of Accountancy, Enugu State University of Science and Technology, Nigeria***Corresponding Author: Ugwuene, R. N. | Department of Accountancy, Enugu State University of Science and Technology, Nigeria****ABSTRACT**

This study examined effect of corporate financing on shareholder's value maximization of Nigerian pharmaceutical sector. The study specifically examined effect of total debt, equity securities, trade payable and retained earnings on shareholders' value in Nigerian pharmaceutical sector. The study made use of secondary data obtained from annual reports and accounts of five (5) sampled firms in Nigerian pharmaceutical firms. The collected data were analysed using multiple regression analysis. Result of the analysis showed that total debt had positive and significant effect on shareholders' value in Nigerian pharmaceutical sector. It was also observed that equity securities had positive and significant effect on shareholders' value in Nigerian pharmaceutical sector. The study further showed that trade payable had positive and significant effect on shareholders' value in Nigerian pharmaceutical sector. It was equally observed that retained earnings had positive and significant effect on shareholders' value in Nigerian pharmaceutical sector. Based on the findings, the study recommended that Managers and business owners should give proper attention to manpower requirement of their organization. It is imperative for management to constantly train her workforce and focus on maximizing the workforce skills required to perform task of various techniques capable of transforming the organization positively. Finally, investors are advised to among other things considered values such as equity issue securities, trade payables and retain earnings in their quest for investment.

Keywords: *Corporate Financing; Shareholder's Value Maximization; Nigerian Pharmaceutical Sector Survival Fund; Textile Survival Fund*

Introduction

Corporate financing refers to the way a corporation finances its assets or future investment. It could also be seen as the various sources of funds available to corporations in time of investment. Raising capital through security (a source of fund) offering is an important event in the financial pattern of listed corporations. The different use of the various sources of fund and their effect on firm value varies from country to country due to the differences in financial systems and institutional factors. According to Brealy and Myers (2012), companies faced two basic financing decisions: how much profit should be ploughed back into the business rather than paid out as dividends? What proportion of the deficit should be financed by borrowing rather than an issue of equity? These along with trade payables are the central corporate financing decisions for each and every firm. Companies can raise capital internally by retaining earnings or trade payables and externally from the capital market. The two principal external sources of raising capital are equity and debt. These come from either private sources like bank loans and private placements or public sources like issuing new securities in domestic and foreign capital markets.

The analysis of bank loans, private replacements, and investigation of securities offerings to the public has been a fascinating area of academic research in corporate finance. By deciding to issue one or another type of security, firms are constantly changing their capital structure. Several studies examine the impact or effect on shareholders' value when changes in capital structure take place due to the issuance of equities and debts. Ross, Westfield and Jaffe (2012) noted the following: "it seems reasonable to believe that new long-term financing is arranged by firms after positive net present value projects are put together. As a consequence, when the announcement of external financing is made, the firm market value should go up"

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The empirical analysis of de Haan and Hinloopen (2019) indicated that the choice between internal and external financing depends on the availability of internal cash flow and liquid assets. Firms with insufficient internal funds are likely to acquire external finance. The maximization of shareholders' wealth is a function of the value of the firm. This can only be achieved when a financing decision that incurs no cost or less cost is used, as the type of finance used had an overall implication for shareholders' earnings.

Statement of the Problem

The use of debt in the capital structure of the firm often leads to agency costs. The agency cost theory is premised on the idea that the interests of the company's managers and its shareholders are not perfectly aligned. Previous studies emphasized the importance of the agency costs of equity, arising from the separation of ownership and control of firms, whereby managers tend to maximize their own utility rather than the value of the firm. Agency costs can also exist from conflicts between debt and equity investors. These conflicts arise when there is a risk of default. The risk of default may create what is referred to as an "underinvestment" or "debts overhang" problem. In this case, debt will have a negative effect on the value of the firm. Alternatively, there may be instances where managers have incentives to take excessive risks as part of risk-shifting investment strategies. This leads to free cash flow theory where as stated by Jensen (2016: pp. 323) "the problem is how to motivate managers to disgorge the cash rather than investing it below the cost of capital or wasting it on organizational inefficiencies." Thus, high debt ratios may be used as a disciplinary device to reduce managerial cash flow waste through the threat of liquidation or through pressure to generate cash flows to service debt. In these situations, debt will have a positive effect on the value of the firm.

It is quite problematic to decide on the best option or mode in which a business activity or investment can be financed or the combination mix that will reduce cost and maximize shareholders' value. It is against this backdrop that this study tends to examine the effect of corporate financing on shareholder value maximization of the Nigerian pharmaceutical sector.

Objectives of the Study

The main objective of this empirical research is to evaluate the effect of corporate financing on shareholder value maximization of the Nigerian pharmaceutical sector. The specific objectives are:

- i. To investigate the effect of total debt on shareholders' value in the Nigerian pharmaceutical sector.
- ii. To ascertain the effect of equity securities on shareholders' value in the Nigerian pharmaceutical sector.
- iii. To determine the influence of trade payable on shareholders' value in the Nigerian pharmaceutical sector.
- iv. To examine the influence of retained earnings on shareholders' value in the Nigerian pharmaceutical sector.

Research Questions

The following questions guided the study;

- i. What are the effects of total debt on shareholders' value in the Nigerian pharmaceutical sector?
- ii. How do equity securities affect shareholders' value in the Nigerian pharmaceutical sector?
- iii. To what extent does trade payable affect shareholders' value in the Nigerian pharmaceutical sector?
- iv. What are the effects of retained earnings on shareholders' value in the Nigerian pharmaceutical sector?

Statement of Hypotheses

The following null hypotheses guided the study;

- i. Total debt does not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.
- ii. Equity securities do not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.
- iii. Trade payable does not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.
- iv. Retained earnings do not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

Scope of the Study

This study focused on the impact of corporate financing on shareholder value maximization with particular reference to the Nigerian pharmaceutical sector. For a period of ten (10) years spanning from 2011 to 2020. In terms of variable scope, the study focused on total debt, equity securities, trade payable and retained earnings as the independent variables while shareholders' value was used as the dependent variable.

Review of Related Literature

Conceptual Review

Shareholders Value

Shareholders' value is the value delivered to the equity owners of a corporation due to management's ability to increase sales, earnings, and free cash flow, which leads to an increase in dividends and capital gains for the shareholders.

A company's shareholders' value depends on strategic decisions made by its board of directors and senior management, including the ability to make wise investments and generate a healthy return on invested capital. If this value is created, particularly over the long term, the share price increases and the company can pay larger cash dividends to shareholders. Mergers, in particular, tend to cause a heavy increase in shareholders' value.

Total Debt

Total debt is calculated by adding up a company's liabilities, or debts, which are categorized as short and long-term debt. Financial lenders or business leaders may look at a company's statement of financial position to factor in the debt ratio to make informed decisions about future loan options. They calculate the debt ratio by taking the total debt and dividing it by the total assets. Total debt can be computed by looking at its net debt formula: $\text{Net debt} = (\text{short-term debt} + \text{long-term debt}) - (\text{cash} + \text{cash equivalents})$.

The term debt ratio refers to a financial ratio that measures the extent of a company's leverage. The debt ratio is defined as the ratio of total debt to total assets, expressed as a decimal or percentage. It can be interpreted as the proportion of a company's assets that are financed by debt. A ratio greater than 1 shows that a considerable portion of a company's assets is funded by debt, which means the company has more liabilities than assets. A high ratio indicates that a company may be at risk of default on its loans if interest rates suddenly rise.

Equity Securities

Equity securities are financial assets that represent shares of a corporation. The most prevalent type of equity security is common stock. And the characteristic that most defines equity security differentiating it from most other types of securities—is ownership. If you own an equity security, your shares represent part ownership of the issuing company. In other words, you have a claim on a percentage of the issuing company's earnings and assets. If you own 1% of the total shares, or security stocks, issued by a company, your part ownership of the controlling company is equivalent to 1%. Other assets, such as mutual funds or exchange-traded funds, may be considered equity securities as long as their holdings are composed of pooled equity securities.

Trade Payable

A trade payable is an amount billed to a company by its suppliers for goods delivered to or services consumed by the company in the ordinary course of business. These billed amounts, if paid on credit, are entered in the accounts payable module of a company's accounting software, after which they appear in the accounts payable ageing report until they are paid. Any amounts owed to suppliers that are immediately paid in cash are not considered to be trade payables, since they are no longer a liability.

Trade payables are nearly always classified as current liabilities since they are usually payable within one year. If that is not the case, then such payables can be classified as long-term liabilities. A longer-term liability typically has an interest payment associated with it, and so is more likely to be classified as long-term debt.

Retained Earnings

Retained earnings are an important concept in accounting. The term refers to the historical profits earned by a company, minus any dividends it paid in the past. The word "retained" captures the fact that because those earnings were not paid out to shareholders as dividends they were instead retained by the company. For this reason, retained earnings decrease when a company either loses money or pays dividends, and increase when new profits are created.

Retained earnings (RE) is the amount of net income left over for the business after it has paid out dividends to its shareholders. The decision to retain the earnings or distribute them among the shareholders is usually left to the company management. A growth-focused company may not pay dividends at all or pay very small amounts because it may prefer to use retained earnings to finance expansion activities.

Theoretical Review

Two theories were used to support this study. The theories are, agency theory put forward by Berle and Means in 1932 and Financing Constraint Theory propounded by Goldratt in 1990.

The Agency Theory

Agency theory was initially put forward by Berle and Means in 1932. Later, other notable authors like Adam Smith (1972), Ross and Mitmick (1972) and Fama and Jensen (1983), contributed to the development of the study. Ross and Mitmick (1972) argued that firm growth most of the time benefits managers rather than stockholders. The study investigates what happens when managers, as opposed to owners, run large corporations. Adam Smith (1776) pointed out that hired managers do not take as much care of their firms as owners. Managers pursue growth because growth benefits them personally, growth guarantees employment and salary increases for managers due to the greater responsibilities of managing a larger firm. Jensen and Meckling (1976) argued that agency conflicts arise from the possible divergence of interests between shareholders (principals) and managers (agents) of firms. The primary duty of managers is to manage the firm in such a way that it generates returns to Shareholders thereby increasing the profit figures and cash flow. Due to the non-rational and opportunistic behaviour of agents (the interests and decisions of managers are not always aligned with the shareholders' interests, resulting in agency costs or agency problems.

Financing Constraint Theory

This theory was propounded by Goldratt in 1990. In the theory, Goldratt (1990) contended that organizations which don't make a benefit, do not have support to contribute and won't have the capacity to back their development or possibly their supportability, and will at long last vanish. Here, the cradle is the held income, which will be little if the organization does not make a benefit or chooses to allot the majority of its benefit to the shareholders. This cradle is equivalent to the inside capital, or, in other words, outer capital as indicated by the pecking request theory. Put in another way, the theory expresses that the organizations which produce benefit and then hold them, benefits themselves from good development openings while the organizations having no or low benefits can't profit from great investment openings, so they don't develop quickly (Jang and Park, 2011). The theory called attention to the issue that shareholder value do not take as much consideration of their organizations as do proprietors. Supervisors seek after firm development since development ensures their business and pay increments because of the more noteworthy duties of dealing with a bigger firm. Because of the significance of this theory to assets administration, the examination is tied down to the Agency Theory.

Empirical Review

Effect of Total Debt on Shareholders' Value in the Nigerian Pharmaceutical Sector

Arowoshegbe and Emeni (2014) examined the relationship between shareholders' value and debt-equity mix of quoted companies in Nigeria. Data were for the period 2007 to 2011 comprising six non-financial companies. The result showed a significant negative relationship between shareholder wealth and debt-equity mix.

Mujahid (2014) evaluated the effect of capital structure on the firm's financial performance and shareholders' value in the textile sector of Pakistan. Regression analysis was used to analyze sample data of 155 textile firms for the year 2000 to 2011. The result showed that the capital structure positively impacts the firm's financial performance and shareholders' value.

The effect of firms' financial performance was also analyzed by Raize (2015). Least square regression analysis was used on data from 28 listed firms in the chemical sector of Pakistan at the Karachi stock exchange for the period of 1999 to 2013. The outcome showed that TDR and STDTA have a negative influence on the firm's ROA while DER and LTDTA have a negative but insignificant influence on ROA.

Sheikh and Wang, (2010) examined the financing behaviour of textile firms in Pakistan. Regression model analysis was employed to analyze the data for 75 listed textile firms in the duration of 2012-2017. The outcome disclosed that the amount of debt in the capital structure negatively affects profitability. An increase in the amount of debt in the capital structure of firms decreases profitability as a repercussion (Ahmad, 2014; Memon et al. 2012).

Mirza and Javed (2013) investigated the determinants of financial performance in Pakistan. Correlation and fixed effect model analysis was applied to the data of 60 firms within the interval of 2001-2011. The end results divulged that the performance of the firm (ROE) is positively affected by DER, whereas negatively affected by LTDTA and STDTA.

Effect of Equity Securities on Shareholders' Value in the Nigerian Pharmaceutical Sector

A comprehensive and prominent empirical study conducted by (Abor, 2015) on the firms listed on Ghana Stock Exchange disclosed that STDTA and TDTA have a positive impact on ROE (profitability), whereas LTDTA has a negative impact. The degree of equity in the capital structure is positively associated with the profitability (ROA) of insurance firms in Pakistan while Leverage has negative relation with profitability (Malik, 2011).

Raheman et al. (2017) scrutinized the link between capital structure and profitability. The data from the 94 non-financial firms for a phase of 6 years (2010-2015) was put in use. They employ the regression and correlation analysis and made known that equity and firm size have a positive effect, while leverage (Debt) has a negative effect on the profitability of organizations. A high-rank study accomplished by Titman and Wessels (2018) on the issue of "The Determinants of Capital Structure Choice" disclosed that firm size has a negative impact on STD ratio while non-debt tax shield, Growth opportunities, earnings volatility and collateral value have no effect on the firm's debt ratio. Debt and firm size are positively linked with the profitability of firms and the profitability of firms is also affected by the nature of the industry, in which they compete (Singapurwoko and Mustofa, 2011).

Khan et al. (2013) inspected the capital structure, financial performance and their effect on stock returns. After analyzing the data from 69 listed textile firms in Pakistan, they reveal that leverage, ROE, EPS, and Cash low ratio have a positive effect on the return of firm stock. The capital structure of textile firms in Pakistan is positively linked with the wealth of stockholders (Stock price) and the performance of organizations (ROA, ROE and EPS) (Mujahid and Akhtar, 2014).

Influence of Trade Payable on Shareholders' Value in the Nigerian Pharmaceutical Sector

San and Heng (2011) critically investigated the relationship between corporate performance and capital structure by using the data from the construction sector of Malaysia. They disclosed that EPS and debt to capital have a negative link between them in large and small firms, while return on capital and debt to equity market value, EPS and long-term debt to capital have a positive link, particularly for large firms. In medium-size firms, there is a positive relationship between OM and LDCE (Long term debt to common equity). The volume of debt in the capital structure of firms in Jordan has a negative and remarkable effect on the performance of companies when performance is evaluated both in accounting-based (ROA) and market-based (Tobin's Q) measures (Zeitun and Tian, 2017).

Hijazi and Tariq, (2016) explored the determinants of capital structure in the Cement sector of Pakistan. The outcome communicated that profitability and firm size have a negative link with leverage while there is a positive association between tangibility, growth and leverage. The contemporary investigation conducted by (Amara and Aziz, 2014; Khanam et al. 2014) divulged the inverse relationship on profitability (ROA, ROE) by the degree of debt in capital structure in the food sector of Pakistan. Financial leverage and profitability have a negative linkage between them in the life insurance sector of Pakistan (Ahmed et al., 2010).

The capital structure of a firm is referred to the Firm's financing through different sources like Equity (Common and Preferred Equity) and Debt (Short-term and Long-term). Firms calibrate their debt option for financing their operations by issuing bonds to the general public having the specific prescribed interest rate or taking a loan from the banks in the form of notes payable which is classified as long-term debt, another option to finance a firm's operations is from equity source by issuing common stocks and preferred stocks to the general public. The capital structure of a firm also includes short-term debt in the shape of the working capital requirements of the firm.

Influence of Retained Earnings on Shareholders' Value in the Nigerian Pharmaceutical Sector

Yusuf et al. (2014) explored the capital structure and profitability within the context of Nigerian firms. They used correlation and regression to inspect the data of 10 Nigerian firms in the period of 2000 to 2011. The end result disclosed that ROE and Debt to equity have a noteworthy relationship while, ROE and DAR, ROA and DAR, and ROA and DER have a trivial relationship. The trivial relation between capital structure and financial performance (ROA, ROE and GPM) is also made known in the empirical study by Ebaid (2019). Specifically, all the measures of capital structure (STD, LTD and TTD) disclosed their trivial influence on GM (Gross Margin).

Tayyaba (2013) scrutinized leverage and its association with the profitability of firms. The regression and correlation coefficient method was used on the data of 25 companies in the oil and gas sector of India. The outcome of this investigation is striking as it revealed that financial leverage has a positive effect on both ROE and ROA. The finding also claimed that on accounting and market-based measures, firms with high leverage have less risk. The performance (Market Efficiency or Q) of Palestinian banks is positively linked with leverage (Abadi and Abu-Rub, 2012).

Salehi and Biglar (2019) examined the link between performance and capital structure of 117 listed firms in Iran. The end result disclosed that debt has an inverse linkage with the performance and profitability of firms. An empirical investigation carried out in Sri Lanka by Pratheepkanth (2011) on that issue unveiled that the financial performance (ROA, Net profit and ROI) of companies is negatively related to the capital structure. Ahmad et al. (2012) investigated the capital structure effect on firm performance. The data used were extracted from the 58 listed firms in the consumer and industrial sectors of Malaysia. The findings revealed that short-term debt and long-term debt has a noteworthy link with profitability measures such as ROA while a remarkable positive tie-up was unveiled between ROE and LTD. The volume of debt in the Capital structure of firms has an inverse tie-up with their performance (Hasan et al. 2014). They put on the view that ROA is negatively affected by debts of all levels, while EPS has a negative relationship with debts (LTDTA and TDTA) except with STDTA.

Rafiq et al. (2018) evaluated the Determinants of Capital Structure in the Chemical sector of Pakistan. Data from 26 firms was used over the term of 12 years (2006-2017). The outcome, after applying the panel regression analysis communicated that profitability has a negative linkage with leverage, whereas a positive association was unveiled between leverage and size, tangibility, growth and income variation. The link between growth, profitability and leverage was negative while the link between size, tangibility and leverage was uncovered as positive in the listed firms of Pakistan (Shah and Khan, 2017).

Gul et al. (2012) investigated the relationship between firm performance and corporate governance. Pooled least square method was used to inspect the data of 50 firms in the textile sector listed at KSE. The outcome made known the negative influence of TDTA (leverage) on the performance of firms.

Masnoon and Saeed (2014) scrutinized the determinants of capital structure within the context of the automobile sector of Pakistan. The data from 10 listed firms in the period of 2001 to 2012 was crucially investigated. The final result disclosed that capital structure has a negative link with size, growth, tangibility and profitability whereas a positive association was uncovered with the variability in the firm's earnings. The negative link was explored between debt (SDA, LDA and DA) and ROE (Profitability) in the listed firms of Jordan (Shubita and Alsawalhah, 2012).

Gill and Mathur, (2011) inspected the factors that affect the leverage of firms. The data used were retrieved from the 166 firms listed on the Toronto stock exchange in the span of 2001 to 2010. The end result made known that leverage has a positive impact on firms in the service sector while negatively associated with the firms in the manufacturing sector. The outcome of an investigation in India by (Goyal, 2013) disclosed a positive association between short-term debt and profitability while negative link was discovered between profitability and long-term debt. A critical examination in the engineering sector of Pakistan made known that ROA and ROE are negatively affected by debts of all levels whereas the performance of firms evaluated in terms of Tobin's Q has a positive link with LTDTA (Khan, 2012).

Quang and Xin, (2014) scrutinized the effect of ownership structure and financing decisions on the performance of firms. The findings exposed the negative correlation between the performance (ROE and ROA) of the firms and financing decisions (SDA, LDA and TDA) in Vietnam. A well-attended empirical examination conducted by (HUANG and SONG, 2016) in China on the data of 1201 firms for 10 years (2004-2013) made known the negative tie-up in between ROA (profitability) and leverage. The efficiency of firms escalated with an increase in the degree of leverage of firms and financing decisions are not influenced by sorts of ownership (Margaritis and Psillaki, 2010).

Umar et al. (2012) examined the impact that capital structure has on financial performance on the data of 100 top firms in Pakistan for 4 years (2016-2019). The outcome displayed that capital structure (CLTA, LTLTA, and TLTA) inversely affect the profitability (EBIT, EPS and ROA). Whereas a positive link was revealed between ROE and LTDTA. In the empirical study of (Patel and Bhatt, 2013) the negative association between profitability and debts was unveiled while the linkage was positive between equity and profitability. Measures of financial performance such as ROE and ROA had negatively affected by their capital structure to a large extent (Mwangi et al. 2014).

Gap in Literature

So many authors have carried out a related study on corporate finance and shareholders value maximization such as the research of Anup and Suman Paul (2010) on research on the effect of capital structure on firm value in the Dhaka stock exchange and Chittagong stock exchange of Bangladesh for the period 2004-2010, Arowoshegbe and Emeni (2014) on the relationship between shareholders value and debt-equity mix of quoted companies in Nigeria, Mujahid (2014) on the effect of capital structure on the firm's financial performance and shareholders value in textile sector of Pakistan. The effect of firms' financial performance was also analyzed by Raize (2015). Sheikh & Wang, (2010) on the financing behavior of textile firms in Pakistan. Mirza & Javed (2013) on the determinants of financial performance in Pakistan, Raheman et al. (2017) on the link between capital structure and profitability. The majority of the existing studies were carried out outside the Nigerian pharmaceutical industry and also very few of the studies were carried out in Nigeria, it is against this backdrop that this study tends to bridge the existing knowledge gap.

Methodology

Research Design

The study adopted *ex post facto* research design which provides an empirical solution to research problems by using data which are already in existence. The study is therefore based on published financial statements of the selected pharmaceutical firms in Nigeria.

Area of Study

The study was conducted in Nigeria and focused on the Nigeria pharmaceutical firms listed in the Nigeria Stock Exchange (NSE) for a period of ten years (2011 to 2020).

Sources of Data

The data source for the study was secondary data. The data were collected from published annual reports and accounts of the selected pharmaceutical firms listed in the Nigeria Stock Exchange. The independent variables of the study were: Equity security, retained earnings, Debt Security and Trade payable while the dependent variable was the shareholders value of the selected firms.

The population of the Study

The population of the study comprised all the fourteen (14) pharmaceutical firms listed in the Nigeria Stock Exchange as of 31st December 2020.

Sample Size Determination

A sample of five (5) firms was drawn from the pharmaceutical firms listed on the Nigeria Stock Exchange. The sampled firms include Mayer and Baker plc, Morison industry plc, Neimeth plc, Fidson health care plc and Glaxosmith Plc. A sample of five firms was selected in order to guarantee the accuracy and reliability of the result of the study. The basis for the selection is the availability of data at the time of this study.

Model Specification

The following model was developed based on the variables used in the study:

$$SHV = \beta_0 + \beta_1 TDBT + \beta_2 EQTS + \beta_3 TRDP + \beta_4 RE + \varepsilon$$

Where:

- TDBT = Total Debt
- EQTS = Equity Securities
- TRDP = Trade Payable
- RE = Retained Earnings
- SHV = Shareholders' value

β = Beta

ε = error margin

$\beta_1, \beta_2, \beta_3, \beta_4$ = proportionate change in dependent due to change in independent variables.

Method of Data Analysis

Multiple regression analysis was used as the main tool of analysis for the test of hypotheses formulated for the study while t-statistics was used as a supporting tool of analysis also used to test the effect of the independent variables on the dependent variable. The independent variables are: Equity security, Retained earnings, Debt Security and Trade payable while the dependent variable was the shareholders value of the selected firms.

Results

Table 1: Descriptive Result

	SHV	TDBT	EQTS	TRDP	RE
Mean	1.540365	5.716447	6.086752	6.032760	6.254509
Median	-0.094215	5.768857	6.297259	6.030468	6.292953
Maximum	6.025710	6.864461	6.871928	7.376179	7.388687
Minimum	-1.698970	4.291768	4.989356	4.419146	5.162364
Std. Dev.	3.106131	0.814679	0.588374	0.801912	0.550535
Skewness	0.633204	-0.312139	-0.652635	-0.386083	0.286670
Kurtosis	1.560136	1.865030	2.232002	2.383337	2.459729
Jarque-Bera	7.660412	3.495580	4.778231	2.034406	1.292943
Probability	0.021705	0.174158	0.091711	0.361605	0.523891
Sum	77.01824	285.8223	304.3376	301.6380	312.7254
Sum Sq. Dev.	472.7545	32.52141	16.96299	31.51011	14.85137
Observations	50	50	50	50	50

The summarized descriptive statistics of the explained and explanatory variables as presented in Table 1 below for the period 2011 to 2020, revealed the following observations. First, the shareholders' value is reported to have a mean (median) value of 1.540365 (-0.094215) and a standard deviation of 3.106131.

Equally, the mean of shareholders value is about 1.540365 or above 100% and the mean of total debt is 5.716447 or above 100%, the mean of equity security is 6.086752 or below 100%, the mean of trade payable is 6.032760 which is also below 100% and the mean of retain earnings is 6.254509 which is also below 100%. The result indicated that in the average of every ₦5.768857K of TDBT, ₦6.297259K of EQTS, ₦6.030468K of TRDP and ₦6.292953K of RE was earned as shareholders value.

The maximum values of these series are 6.025710, 6.864461, 6.871928, 7.376179 and 7.388687 for shareholders' value, total debt, equity security, trade payable and retained earnings respectively. The minimum values are; -1.698970, 4.291768, 4.989356, 4.419146 and 5.162364 for shareholders' value, total debt, equity security, trade payable and retained earnings respectively.

The value of skewness and Kurtosis reveals the extent normality is achieved in the distribution.

Table 1 reveals that the observed distribution for Earning per share, Equity Security, Trade payable, Retain earnings and total debt respectively have skewness co-efficient of 0.633204, -0.312139, -0.652635, -0.386083 and 0.286670 respectively, which are not in excess of unity.

The table further indicates that the Kurtosis coefficient for shareholders' value, total debt, equity security, trade payable and retained earnings respectively are; 1.560136, 1.865030, 2.232002, 2.383337 and 2.459729 respectively.

Test of Hypotheses

The test of hypotheses was carried out as follows:

- Step 1: Re-statement of the hypothesis in the null and alternate forms
- Step 2: Statement of decision criteria
- Step 3: Presentation of test result
- Step 4: Decision

Table 2: Hypothesis Table

Dependent Variable: SHV
 Method: Panel Least Squares
 Date: 01/30/22 Time: 05:54
 Sample: 2011 2020
 Periods included: 10
 Cross-sections included: 5
 Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TDBT	1.382986	0.183217	7.548348	0.0000
EQTS	0.833585	0.167418	4.979062	0.0011
TRDP	0.093947	0.019843	4.734520	0.0002
RE	0.713599	0.013423	4.889020	0.0017
R-squared	0.618094	Mean dependent var		1.540365
Adjusted R-squared	0.545078	S.D. dependent var		3.106131
S.E. of regression	3.164638	Akaike info criterion		5.218573
Sum squared resid	460.6869	Schwarz criterion		5.371535
Log likelihood	-126.4643	Hannan-Quinn criter.		5.276822
Durbin-Watson stat	1.851265			

Source: Author's Computation from E views 9.0, 2021

Hypothesis One

Ho: Total debt does not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

H1: Total debt has a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

Decision Rule: Reject H_0 if the t-statistics is >2.0 and the probability of the t-statistics is <0.05 .

Step 4: Decision

Given the decision criteria to reject H_0 if the t-statistics is >2.0 and the probability value is <0.05 . Table 2 shows the t-statistics as 7.548348 while the probability is $0.0000 < 0.05$. We reject the null hypothesis (H_0) and conclude that total debt has positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector.

Hypothesis Two

Ho: Equity securities do not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector

H1: Equity securities have a significant effect on shareholders' value in the Nigerian pharmaceutical sector

Decision Rule: Reject H_0 if the t-statistics is >2.0 and the probability of the t-statistics is <0.05 .

Step 4: Decision

Given the decision criteria to reject H_0 if the t-statistics is >2.0 and the probability value is <0.05 . Table 2 shows the t-statistics as 4.979062 while the probability is $0.0011 < 0.05$. We reject the null hypothesis (H_0) and conclude that equity securities have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

Hypothesis Three

Ho: Trade payable does not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

H1: Trade payable has a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

Decision Rule: Reject H_0 if the t-statistics is >2.0 and the probability of the t-statistics is <0.05 .

Step 4: Decision

Given the decision criteria to reject H_0 if the t-statistics is >2.0 and the probability value is <0.05 . Table 2 shows the t-statistics as 4.734520 while the probability is $0.0001 < 0.05$. We reject the null hypothesis (H_0) and conclude that trade payable has a significant effect on shareholders' value in the Nigerian pharmaceutical sector.

Hypothesis Four

Ho: Retained earnings do not have a significant effect on shareholders' value in the Nigerian pharmaceutical sector

H1: Retained earnings have a significant effect on shareholders' value in the Nigerian pharmaceutical sector

Decision Rule: Reject H_0 if the t-statistics is >2.0 and the probability of the t-statistics is <0.05 .

Step 4: Decision

Given the decision criteria to reject H_0 if the t-statistics is >2.0 and the probability value is <0.05 . Table 2 shows the t-statistics as 4.889020 while the probability is $0.0017 < 0.05$. We reject the null hypothesis (H_0) and conclude that retained earnings have a significant effect on shareholders' value in the Nigerian pharmaceutical sector

Discussion of Findings

Effect of Total Debt on Shareholders' Value in the Nigerian Pharmaceutical Sector

The result of hypothesis one shows that total debt has a positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector with a t-statistics of 7.548348 was greater than 2.0 and a probability value of 0.0000 which is less than 0.05. This result is in agreement with the study of Anup and Suman Paul (2010) on the effect of capital structure on firm value in the Dhaka stock exchange and the Chittagong stock exchange of Bangladesh for the period 2004-2010. They found that there is a strong positive correlated association.

It is also in line with the study of Arowoshegbe and Emeni (2014) on the relationship between shareholders' value and debt-equity mix of quoted companies in Nigeria which showed a significant negative relationship between shareholder's wealth and debt-equity mix.

The study is also in consonant with the study of Mujahid (2014) on the effect of capital structure on the firm's financial performance and shareholders' value in the textile sector of Pakistan which revealed that the capital structure positively impacts the firm's financial performance and shareholders' value.

Effect of Equity Securities on Shareholders' Value in the Nigerian Pharmaceutical Sector

The result of hypothesis two shows that equity securities have a significant effect on shareholders' value in the Nigerian pharmaceutical sector with a t-statistics of 4.979062 was greater than 2.0 and a probability value of 0.0011 which is less than 0.05. This result is in agreement with the study of Raize (2015) on the effect of firms' financial performance was also analyzed, which showed that TDR and STDTA have a negative influence on the firms' ROA while DER and LTDTA have a negative but insignificant influence on ROA.

It is also in agreement with the studies of Sheikh and Wang, (2010) on the financing behaviour of textile firms in Pakistan which disclosed that the amount of debt in capital structure negatively affects profitability. The study equally agrees with the results of Mirza and Javed (2013) on determinants of financial performance in Pakistan. The end results divulge that the performance of the firm (ROE) is positively affected by DER, whereas negatively affected by LTDTA and STDTA.

Influence of Trade Payable on Shareholders' Value in the Nigerian Pharmaceutical Sector

The result of hypothesis three shows that trade payable has a significant effect on shareholders' value in the Nigerian pharmaceutical sector with a t-statistics of 4.734520 greater than 2.0 and a probability value of 0.0001 which is less than 0.05. This result is in agreement with the study of Raheman et al. (2017) on the link between capital structure and profitability. The data from the 94 non-financial firms for a phase of 6 years (2010-2015) was put in use. They employ the regression and correlation analysis and made known that equity and firm size have a positive, while leverage (Debt) has a negative effect on the profitability of organizations.

The result is also in agreement with the study of Khan et al. (2013) inspect the capital structure, financial performance and their effect on stock returns, which shows that the capital structure of textile firms in Pakistan is positively linked with the wealth of stockholders (Stock price) and performance of organizations (ROA, ROE and EPS).

It agrees with the studies of San and Heng (2011) on the relations between corporate performance and capital structure by using the data from the construction sector of Malaysia. They disclosed that EPS and debt to capital have a negative link between them in large and small firms, while return on capital and debt to equity market value, EPS and long-term debt to capital have a positive link, particularly for large firms.

This result is in agreement with the study of Hijazi and Tariq (2016) on determinants of capital structure in the Cement sector of Pakistan. The outcome communicates that profitability and firm size have a negative link with leverage while there is a positive association between tangibility, growth and leverage.

Influence of Retained Earnings on Shareholders' Value in the Nigerian Pharmaceutical Sector

The result of hypothesis four shows that retained earnings has a significant effect on shareholders' value in the Nigerian pharmaceutical sector with a t-statistics of 4.889020 was greater than 2.0 and a probability value of 0.0017 which is less than 0.05. This result is in agreement with the study of Yusuf et al. (2014) on capital structure and profitability within the context of Nigerian firms. The result disclosed that ROE and Debt to equity have noteworthy relation while, ROE and DAR, ROA and DAR, and ROA and DER have trivial relation.

It is also in agreement in line with the study of Tayyaba, (2013) on scrutinizing leverage and its association with the profitability of firms. The outcome of this investigation is striking as it revealed that financial leverage has a positive effect on both ROE and ROA. The finding also claimed that on accounting and market-based measures, firms with high leverage have less risk. The performance (Market Efficiency or Q) of Palestinian banks is positively linked with the leverage.

This is in agreement with the studies of Salehi and Biglar (2019) on the link between the Performance and Capital structure of 117 listed firms in Iran. The result disclosed that debt has an inverse linkage with the performance and profitability of firms. An empirical investigation carried out in Sri Lanka By (Pratheepkanth, 2011) on that issue unveiled that the financial performance (ROA, Net profit and ROI) of companies is negatively related to the Capital structure.

It also agrees with the study of Ahmad et al. (2012) on capital structure's effect on firm performance. The findings revealed that Short term debt and long-term debt have a noteworthy link with profitability measures such as ROA while a remarkable positive tie-up was unveiled between ROE and LTD.

Summary of Findings

At the end of this study on the effect of corporate finance on shareholders' value maximization of the Nigerian pharmaceutical sector. The study found the following:

- i. Total debt has a positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector with t-statistics of 7.548348 was greater than 2.0 and a probability value of 0.0000 which is less than 0.05.
- ii. It was also observed that equity securities have a positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector with t-statistics of 4.979062 was greater than 2.0 and a probability value of 0.0011 which is less than 0.05.

- iii. The study further shows that trade payable has a positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector with t-statistics of 4.734520 was greater than 2.0 and a probability value of 0.0001 which is less than 0.05.
- iv. It was equally observed that retained earnings have a positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector with t-statistics of 4.889020 was greater than 2.0 and a probability value of 0.0017 which is less than 0.05.

Conclusion

One of the main objectives of firm management is to maximize the wealth of the owners or shareholders of the firm. This objective could be achieved by taking rational financing decisions regarding optimal financial factors which would minimize the cost of capital. The financial factors of a firm are the Total Debt (TDBT), Equity Security (EQS), Trade payable (TDP) and Retain Earning (RE); this is referred to as the firm's long-term financing mix. The financing decision is critical for any firm for maximizing return to the various stakeholders and to enhance the firms' ability to operate in a competitive environment. Inappropriate capital mixes in business often lead to problems in sourcing funds to finance the firm's future operations and can even lead to the failure or liquidation of the business. This will be so because improper capital mix can lead to earning per share problems as well. Besides problems arising from improper planning of Finances, there are other problem areas that affect, both the equity issue securities and earnings per share. Many firms in the conglomerate sectors which had in the past contributed greatly to the economy of Nigeria are now phasing out or reducing their operations. The cause of this could be traceable to inadequate capital structure. Therefore, the vital issue confronting managers today is how to choose the investment in equity issue securities that would minimize the firm's cost of capital and improve return to owners of the business.

Recommendations

- i. There is a need for the management of pharmaceutical firms to minimize the rate of debt financing as it has an adverse effect on the shareholders' value in the Nigerian pharmaceutical sector.
- ii. Managers and business owners should give proper attention to the management of equity security since equity securities has a positive and significant effect on shareholders' value in the Nigerian pharmaceutical sector.
- iii. It is imperative for management to constantly train its workforce and focus on maximizing the workforce skills required to perform the task of various techniques capable of transforming the organization positively since trade payable has a positive and significant effect on shareholders' value.
- iv. investors are advised to among other things considered values such as equity issue securities, trade payables and retain earnings in their quest for investment as retained earning's have a positive and significant effect on shareholders' value.

References

- Myers, S. and Majluf, N. (2014). Corporate financing and investment decisions when firms have information investors don't have. *Journal of Financial Economics* 13, 187-221
- Rajan, R and Zingales, L. (2015). What do we know about capital structure? Some evidence from international data. *Journal of Finance* 50, 1421-1460.
- Alloy, S.U. and Alfred, M. O. (2014). The Relationship between Earnings and Stock Return; Empirical Evidence from the Greek Capital Market. *International Journal of Economics and Finance*. 1(1), 24-29.
- Almumani, M. A. (2014). Determinant of Equity Share Prices of the Listed Banks in Amman Stock Exchange; Quantitative Approach. *International Journal of Business and Social Science*, 5(1), 91-94.
- AL-Shubiri, F. (2010). Analysis of the Determinants of Market Stock Price Movements: An Empirical Study of Jordanian Commercial Banks. *International Journal of Business and Management*, 5(10), 137-147.
- Arowoshegbe, A.O. and Ididu, J.O. (2013). Shareholders Value and Profitability of Quoted Companies in Nigeria. *International Journal of Business and Social Research*, 3(3), 99-106.
- Arshan, S. B. (2015). Effect of Inventory Management Practices on Organizational Performance. *International Journal of Business, Humanities and Technology*, 3(5), 157-180.
- Atiyet, B. A. (2012). Effect of Financing Decision on the Shareholder value Creation. *Journal of Business Studies Quarterly*, 1, 44-63.
- Bartlett, C.A. and Ghoshel, S. (2014). An Empirical Study of Impact of EVA Momentum on the Shareholders Value Creation as Compared to Traditional Financial Performance Measures with Special Reference to the UAE. *International Journal of Economics and Finance*, 8(5), 23-34.

- Bdl. R, Brown, P. and Hamad, T.V. (2014). An Empirical Evaluation of Accounting Income Unmbers. *Journal of Accounting Research*, **6**(2), 157-178.
- Belog, F. (2018). Shareholder Agreement and Firm Value; Evidence from French Listed Firm.
- Berle, A. and Mean, S. (1932). *The Modern Corporation and Private Property*. New York, Macmillan.
- Bhunia, A. (2012). The Relationship between Shareholders' Value and Financial Variable, a Study of Maximize Shareholder Value. *Journal of Marketing and Business Research*, **1**(1), 6-16.
- Boodhoo, S.R. (2019). Capital Structure and Ownership Structure: Review of Literature. *The Journal of Online Education*. Journal Edition, **4**(2), 1-8.
- Brook, P.I. (2012). Inventory Management Theories. *Journal of Ecclesiastical History*, **49**(4), 53-73.
- Chang, D., Chen, O., Su, I. and Chang, U. (2018). The Relationship between Stock Price and Earning Per Share; Evidence Based on Taiwan Panel Data. *Economic Bulletin*, **3**(3), 1-12.
- Chitra, G.G. and Venkateshwarlu, M. (2017). Shareholders' Value Creation. *International Journal of Accounting and Finance*, **4**(3), 20-32.
- Chmelikova, M.T. (2018). *Cost and Management Accounting: An Introduction*. London, William Publishers.
- Colasse, B. (2010). *Investment Valuation: Tools and Techniques for Determining the Value of any Asset*. 2nd Edition. John Wiley and Son, New York.
- Copeland, T.T., Koller and Murrin, J. (2010). Is Economic Value Added more Associated with Stock Return than Accounting Earnings? The UK Evidence. *International Journal of Managerial Finance*, **2**(4), 343-352.
- Dechow, O.R. (2019). The Validity of the Economic Value Added Approach: An Empirical Application. *European Financial Management*, **13**(5), 71-100.
- Dimitrios, K.P. (2018). Effect of Inventory Management of Firms Performance. *International Journal of Productivity and Performance Management* **5**(50), 355-369.
- Donaldson, G.M. (2011). Investment Decision and Shareholder Value when Firms have Information that Investors do not have. *Journal of Financial Economic*, **12**(5), 16-24.
- Eboh, E.C. (2018). *Social and Economic Research: Principles and Methods*. 1st Edition. Lagos, Academic Publications and Development Resources Ltd.
- Ebrahim, M. and Chadegani, A.A. (2011). The Relationship between Earnings, Dividend, Stock Price and Stock Return. Evidence from Iranian Companies. *International Conference on Humanities, Society and Culture*, **20**(12), 84-91.
- Erasmus, P.D. (2018). The Relative and Incremental Information Content of the Value Based Financial Performance Measure Cash Value Added. *Management Dynamics*, **17**(1), 2-15.
- Fabrizi, O. and Ididu, J.O. (2014). Inventory Management System and Performance of Food and Beverage Companies in Nigeria. *IOSR Journal of Mathematics*, **6**(1), 336-341.
- Myers, S.C. and Majluf, G.T. (2014). The Capital Structure Puzzle. *The Journal of Finance*, **39**(3), 575-592.
- Nowak, O.K. (2017). Price and Return Model. *Journal of Accounting and Economic*. **5**(20), 155-192.
- Oladele, K.O. (2013). The Determinants of Value Creation in the Nigerian Banking Industry; Panel Evidence. *International Journal of Business and Social Science*, **3**(2), 90-101.
- Onaolapo, A.A. and Kojala, S.O. (2010). Capital Structure and Firms Performance; Evidence from Nigeria. *European Journal of Economic, Finance and Administrative Science*, **25**(5), 70-82.
- Sharma, J.A. (2011). Earnings, Book Values and Dividends in Equity Valuation. *Contemporary Accounting Review Research*, **11**(4), 661-687.
- Shil, N.C. (2019). Performance Measures: An Application of Economic Value Added. *International Journal of Business and Management*, **4**(3), 169-177.
- Smith, E.C. (2013). Investment Valuation: Tool and Technique of Determining the Value of any Asset. *International Journal of Accounting and Finance*, **4**(4), 30-41.
- Srivastava, R.K., Shervani, T.A. and Fahey, L. (2018). Marketing, Business Processes and Shareholder's Value: An Organizationally Embedded View of Marketing Activities and the Discipline of Marketing. *Journal of Marketing*, **6**(2), 168-179.
- Stewart, G.B. (2016). *The Quest for Value: The EVA Management Guide*, New York, Harper Business.
- Suleman, A.S. (2013). Capital Structure Effect on Firms Performance. Evidence from Saudi Listed Companies. Retrieved from <http://library2>.
- Sulger, R.M. (2018). Performance Measures: Traditional Accounting Measures Versus Economic Value Based Measure. 3rd *International Conference on Accounting and Finance in Transition*, London University, University of Greenwich, Business School.
- Tarbara, U.E. and Dicu, F.O. (2017). Toward Improved Use of Value Creation Measures in Financial Decision Making; *Journal of Applied Business Research*, **26**(4), 1175-1188.
- Umar, M.S. and Musa, T.B. (2013). Stock Prices and Firm Earning Per Share in Nigeria; *JORIND2*(11), 16-19.

APPENDIX I: DATA

Year	Firms	EQTS	RE	TDBT	TRDP	EPS	SHV
2011	M & B	1,991,394	714,313	1,817,051	978,371	0.14	278795.16
2012		2,116,094	816,086	2,394,887	1,084,491	0.08	169287.52
2013		2,116,094	1,037,126	2,641,668	853,664	0.05	105804.7
2014		2,116,094	1,021,408	3,659,575	965,069	0.14	296253.16
2015		2,116,094	943,292	3,523,022	1,089,298	(0.05)	-105804.7
2016		2,116,094	1,036,457	3,575,203	1,040,990	0.06	126965.64
2017		4232188	2074252	5283336	1707328	0.1	423218.8
2018		4232188	2042816	7319150	1930138	0.28	1185012.64
2019		4232188	1886584	7046044	2178596	-0.1	-423218.8
2020		4232188	2072914	7150406	2081980	0.12	507862.56
2011	Morison	97,579	338,897	22,828	37,564	0.27	-26346.33
2012		97,579	305,770	21,890	55,513	0.44	-42934.76
2013		97,579	335,364	21,890	26,251	0.34	-33176.86
2014		97,579	337,378	21,890	31,614	0.03	2927.37
2015		97,579	315,313	42,248	42,248	0.07	6830.53
2016		97,579	232,982	-	82,511	1.08	-105385.32
2017		195158	670728	43780	52502	-0.68	-132707.44
2018		195158	674756	43780	63228	0.06	11709.48
2019		195158	630626	84496	84496	0.14	27322.12
2020		195158	465964		165022	-2.16	-421541.28
2011	Neimeth	1,305,749	(96,494)	506,655	539,462	0.36	-470069.64
2012		1,305,749	145,333	488,277	595,619	0.05	-65287.45
2013		1,305,749	(290,245)	650,179	487,571	0.08	-104459.92
2014		1,977,709	(391,743)	479,036	425,838	0.11	217547.99
2015		1,982,709	(489,700)	530,494	434,820	0.13	257752.17
2016		1,982,709	(489,700)	530,494	530,494	0.36	713775.24
2017		2611498	-580490	1300358	975142	-0.16	-417839.68
2018		3955418	-783486	958072	851676	0.22	870191.96
2019		3965418	-979400	1060988	869640	0.26	1031008.68
2020		3965418	-979400	1060988	1060988	0.72	2855100.96
2011	Fidson	3723043	1372018	38291		0.90	3350738.7
2012		3,723,043	1,507,871	19,578	-	0.16	595686.88
2013		3,723,043	1,468,429	1,702,177	830,808	0.02	74460.86
2014		3,723,043	1,505,465	2,032,519	1,517,386	0.07	260613.01
2015		3,723,043	1,521,257	3,023,734	1,692,586	0.05	186152.15
2016		3,723,043	2,043,001	4,153,462	3,779,619	-	1675369.35
2017		7446086	3015742	39156	2936858	0.32	2382747.52
2018		7446086	2936858	3404354	1661616	0.04	297843.44
2019		7446086	3010930	4065038	3034772	0.14	1042452.04
2020		7446086	3042514	6047468	3385172	0.1	744608.6
2011	Glaxosmith	529,746	5,243,192	461,881	-	3.30	1748162
2012		529,746	6,855,449	5,584,717	4,836,542	4.86	2574565.56
2013		529,746	8,360,912	111,065	6,657,105	5.57	2950685.22
2014		529,746	9,972,881	128,162	8,287,748	478351	2.53E+11
2015		529,746	11,652,261	136,109	10,780,658	6.10	3231450.6
2016		529,746	12,236,482	130,975	11,889,114	3.83	2028927.18
2017		1059492	16721824	222130	13314210	11.14	11802740.88
2018		1059492	19945762	256324	16575496	956702	1.01362E+12
2019		1059492	23304522	272218	21561316	12.2	12925802.4
2020		1059492	24472964	261950	23778228	7.66	8115708.72

APPENDIX II: LOGGED DATA

Year	Firms	EQTS	RE	TDBT	TRDP	SHV
2011	Mayer and Baker plc	6.299157	5.853889	6.259367	5.990504	-0.85387
2012		6.325535	5.911736	6.379285	6.035226	-1.09691
2013		6.325535	6.015832	6.421878	5.931287	-1.30103
2014		6.325535	6.009199	6.563431	5.984558	-0.85387
2015		6.325535	5.974646	6.546915	6.037147	5.911736
2016		6.325535	6.015551	6.553301	6.017447	-1.22185
2017		6.626565	6.316862	6.722908	6.232317	5.911736
2018		6.626565	6.310229	6.864461	6.285588	-0.55284
2019		6.626565	6.275676	6.847945	6.338177	5.911736
2020		6.626565	6.316581	6.854331	6.318477	-0.92082
2011	Morison industry plc	4.989356	5.530068	4.358468	4.574772	5.911736
2012		4.989356	5.485395	4.340246	4.744395	5.911736
2013		4.989356	5.525516	4.340246	4.419146	5.911736
2014		4.989356	5.528117	4.340246	4.499879	-1.52288
2015		4.989356	5.498742	4.625806	4.625806	-1.1549
2016		4.989356	5.367322	5.829147	4.916512	5.911736
2017		5.290386	5.826546	4.641276	4.720176	5.911736
2018		5.290386	5.829147	4.641276	4.800909	-1.22185
2019		5.290386	5.799772	4.926836	4.926836	-0.85387
2020		5.290386	5.668352	5.829147	5.217542	5.911736
2011	Neimeth plc	6.11586	5.829147	5.704712	5.731961	5.911736
2012		6.11586	5.162364	5.688666	5.774969	5.911736
2013		6.11586	5.829147	5.813033	5.688038	5.911736
2014		6.296162	5.829147	5.680368	5.629244	-0.95861
2015		6.297259	6.325535	5.72468	5.63831	-0.88606
2016		6.297259	6.325535	5.72468	5.72468	-0.4437
2017		6.41689	6.325535	6.114063	5.989068	6.02571
2018		6.597192	6.325535	5.981398	5.930274	-0.65758
2019		6.598289	6.626565	6.02571	5.93934	-0.58503
2020		6.598289	6.626565	6.02571	6.02571	-0.14267
2011	Fidson health care plc	6.570898	6.626565	4.583097	6.918437	-0.04576
2012		6.570898	6.178364	4.291768	6.918437	-0.79588
2013		6.570898	6.166853	6.231005	5.919501	-1.69897
2014		6.570898	6.177671	6.308035	6.181096	-1.1549
2015		6.570898	6.182203	6.480544	6.228551	-1.30103
2016		6.570898	6.310269	6.61841	6.577448	6.02571
2017		6.871928	6.479394	4.592798	6.467883	-0.49485
2018		6.871928	6.467883	6.532035	6.220531	-1.39794
2019		6.871928	6.478701	6.609065	6.482126	-0.85387
2020		6.871928	6.483233	6.781574	6.529581	-1
2011	Glaxosmith	5.724068	6.719596	5.66453	6.918437	0.518514
2012		5.724068	6.836036	6.747001	6.684535	0.686636
2013		5.724068	6.922254	5.045577	6.823285	0.745855
2014		5.724068	6.998821	5.107759	6.918437	5.679747
2015		5.724068	7.06641	5.133887	7.032645	0.78533
2016		5.724068	7.087657	5.117188	7.075149	0.583199
2017		6.025098	7.223284	5.346607	7.124315	1.046885
2018		6.025098	7.299851	5.408789	7.219467	5.980777
2019		6.025098	7.36744	5.434917	7.333675	1.08636
2020		6.025098	7.388687	5.418218	7.376179	0.884229