

## THE DETERMINANT OF EQUITY SHARE PRICE AND THE LISTED DEPOSIT MONEY BANKS IN NIGERIA

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### Abstract

*In this study, the researcher examined the financial variables influencing the share price of listed deposit money banks in Nigeria. An ex-post facto research design was employed with the population consisting of all fifteen (15) listed deposit money banks on the Nigeria Stock Exchange (NSE), and a sample of twelve (12) listed deposit money banks on NSE was taken using filter criteria and judgmental sampling techniques. Secondary data used were sourced from the annual reports of the sampled banks and GTI Securities Ltd. for five years period from 2013-2017. Ordinary Least Square (OLS) was used to analyze the data. The results of the multiple regression revealed that the dividend payout ratio and price-earnings ratio have a significant positive relationship with the share price. The results also showed that dividend yield has a significant negative association with share price; the book value per share has no meaningful relationship with the share price. This study recommends that the shareholders in the deposit money banks should be guided by industry financial ratios, especially the profitability measures of price-earnings ratio and dividend payout ratio, as they are critical factors in predicting share price behavior.*

**Keywords:** *Deposit money banks, Dividend yield, financial variables, Price Earnings Ratio, Equity Share Price.*

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## INTRODUCTION

Investor's decision to invest or not in a particular stock is based on the value of the stock price. This thing is one of the most significant indicators accessible to investors. Investment in shares has also become a financial source to fulfill company prerequisites such as diversification or expansion. The general phenomenon indicated that investors are reluctant to take risks, and the unpredictability of their investments raises extraordinary concern for them because it is a measure of the intensity of risk they bear. However, from the perspective of investors, it is

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recommended to have knowledge and awareness of the factors that influence stock prices to make optimal investment decisions. Researchers have connected a few inner (internal) and outer (external) factors that influence stock prices. Company or internal specific factors include company performance, asset position, changes in board structure, dividends, and income. External factors that affect stock prices are government regulations, business cycles, investor attitudes, market conditions, natural disasters, and contingencies such as strikes, closures, etc. (Khan & Amanullah, 2012).

The capital market, as demonstrated by Nwude (2004), is a market for securities, where business organizations and governments can raise long-term funds. The capital market, a financial market that includes the stock market and the bond market, plays a significant role in the economic success that drives capital development and sustains economic growth. The stock market is not only a place to trade securities; but also works to facilitate investors and other parties by gathering funds, sharing risks, and transferring wealth. The stock market is essential for economic growth since they guarantee the flow of resources to the most productive investment opportunities (Abdelkarim, 2014). After an investor has invested a certain amount of money in the company, stocks are proof of investor's ownership. With regards to the securities exchange (stock market), for fulfilling their economic role, leading financial economists have developed several concepts known as essential prerequisites.

Numerous studies have been carried out on the determinants of equity share price, but there are some controversial findings on the factors influencing the equity share price. Several studies found that price-earnings ratio, book value per share, dividend per share, dividend yield, firm size, and leverage are the key predictors of the equity share price (Irmala, Sanju & Ramachandran, 2011; Srinivasan, 2012; Abdelkarim, 2014; Sanjeet, 2009). While others found that book value per share, dividend per share, dividend yield, and company size have no relationship with equity share price (Khan & Amanullah, 2012; Srinivasan, 2012; Yuga, 2014; Abdelkarim, 2014).

Few researchers have empirically studied the financial market in Nigeria to establish the determinants or factors of the equity share price. Some of these studies concentrated on the Oil and Gas Sector (Oyedokun, Aworemi & Odeyemi, 2011; Oliver & Ugah, 2015), but Mohammed and Usman (2016) focused their study on listed Pharmaceutical firms in Nigeria. The study of Adekunle, Agbadudu, and Ammeh (2015) were concentrated on Insurance firms. However, Uwuigbe, Olowe, Olusegun, and Godswill (2012) directed their study toward listed manufacturing firms in Nigeria.

Based on the researcher's knowledge, Oliver and Caroline (2015) are the only study in Nigeria that focuses on the banking sector. They examined earnings per share (EPS) as a factor that influence the share price. It is based on this that the researcher considers that there is a need to investigate more variables that may affect the equity share price of listed banks in Nigeria. In this way, this research aims to fill this gap by examining book value per share, dividend payout ratio, price-earnings ratio, and dividend yield as determinants of the equity share price of listed deposit money banks in Nigeria. The general goal of this research is to examine the determinants of the equity share price of listed deposit money banks in Nigeria.

The following questions are raised for the study:

- i. To what extent does the book value per share impact on equity share price?
- ii. How does the dividend payout ratio influence equity share price?
- iii. In what way can dividend yield determine equity share price?
- iv. Can the price-earnings ratio influence the equity share price?

Several theories informed the debate on the issues seeking to underpin. Two theories, however, in their various forms, reported the variable relationships opined in this study and are considered most suited for that purpose. The theories are dividend theory and efficient market theory.

The fundamental theoretical issue in dividends (Dividend Theories) is whether they affect the shareholders' value; in this case, being a reflection of future expectations and the price of shares owned (Damodaran, 2006). Different scholars in finance and economics who put forward different theories, some were representing original thought while others being opposed. In General, these theories can be categorized into two; those who determine dividends are irrelevant and, therefore, will not affect investor expectations; hence, prices and those whose premises are the opposite.

On the other hand, the irrelevant theory (Irrelevant Dividend Policy) regarding shareholding is not influenced by the dividend policy proposed by Miller and Modigliani (1961). It was said in their theory that the value of the firm is subjected to the earning of the firm, which was included in the company's investment policy. Literature came up with dividends that do not affect the value of shares in the world without taxes and market imperfections. Miller and Modigliani argued that dividends and capital gains are the two main ways in which companies can contribute earnings to shareholders. When a company chooses to distribute its profits as dividends to its shareholders, then the share price will be given automatically with the amount of dividend per share on the ex-dividend date. So, those who question in a perfect market, dividends that do not affect stock spending. Propositions by Miller and Modigliani (MM) have attracted fair attention leading to much supportive research to oppose or support their claims, such as Brennan (1971), (Black & Scholes, 1974), and (Hakansson, 1982).

Contrary to MM's proposition, theorists next argue that the consistent dividend upon them affects the value of the company as an imbalance that affects investors' expectations, prices and their volatility related to the relevance of Dividend Policy. Relevance must be resolved arising from the future, dividend information content, agency fees, and client effects. Gordon (1962) included a Value model that links market values with dividend policy. Gordon provides dividends, and the market price of shares offered by company dividends affects the stock market value in a perfect capital market. He stated that investors could prefer dividends now than future capital because the future does not have to be far from an ideal capital market. Indeed, Gordon explained that many investors might prefer dividends on hand to avoid the risks associated with future capital gains. He also discussed the direct relationship between dividends and market value, if the internal and the required level would be the same. In Gordon's constant growth model (1962), the company's stock price is lower than the discounted flow of future dividends.

The relevance of dividends has been described to show relationships with various components of dividends. Asquith and Mullins (1986) find the relevance of dividends based on the content of dividend information. Jensen et al. (1992) regulate the relevance of dividends based on agency costs, while Pettit (1977) provides empirical evidence about the effects of clients do exist in supporting the relevance of dividends.

According to Al-Shubiri (2010), the equity share price is the value of the firm divided by the number of shares outstanding (Srinivasan, 2012). It is the standard estimation of the expressed figure in the corporate sanction and has minimal financial noteworthiness. Many parties in the stock market, such as traders and investors, are at all times trying to know the share prices trend, and this trend is based on the underlying conditions (Abdelkarim, 2014). Over time,

the prices of stock have been unstable. Stock values often represent its company value so that shareholders can compare the price in the stock market with the actual stock price before deciding to buy or sell stocks. The intrinsic value of an investment can be computed using both fundamental security analysis and technical security analysis, opined by Drakopoulou (2015).

Book Value is shown in the comparison between the stock price and the book value. Price Book Value is used to see the irregularities in stock prices. A low Book Value indicates that the stock price is low. If the position of the stock price is below the book value, there is a tendency that the stock price will go to a minimum balance equal to the book value. This thing means that the stock price has an enormous potential to rise so that the return received will increase. Base Price is the initial price of a stock, and the Market Price is the closing price of a stock, so this market price determines the ups and downs of a stock. In this study, the stock price used is the closing price (Closing Price). Therefore, the first testable null hypotheses:

**H<sub>0</sub>1: There is no relationship between book value per share and equity share price.**

The associations between share price movements and financial ratios in the Nigerian oil and gas sector was examined by Oliver and Ugah (2015). Four oil and gas companies listed on the Nigeria Stock Exchange from 2002 to 2014 were used as the sample. These companies comprise of Mobil Oil Nigeria Plc, Conoil Plc, MRS Nigeria Oil, and Oando Plc. The relationship was examined by using Cross-sectional correlation analysis. The financial ratios such as Earnings per share (EPS), Dividend per share (DPS), Net asset value per share (NAVPS), and Dividend cover (DCO) were the independent variables while the share price is the dependent variable. The results proved that there was no relationship between share movements and financial ratios of the selected oil and gas sector of the Nigerian Stock Exchange (NSE). The study also uncovered that Net Asset Value per share has a strong and positive significant association with the movement of share price in the Nigerian Oil and Gas industry.

Equity Share Price and Book Value are also known as net asset value per share. It measures the number of assets, which the company has in the interest of each equity share. BV indicates the shareholders' investment per share made in the business. Abdelkarim (2014) observed that the company that has a good record of past performances, i.e., high reserves, usually indicates a high book value, therefore, a high market price. The dividend payout ratio and equity share price provide an idea of how well the earnings of the company contribute to the dividend payments. Nwude (2004) found that dividend policy has a significant effect on enhancing corporate market value. More developed companies tend to have a higher payout ratio. On the other hand, it implies that there is an inverse connection between the payout ratio and share price changes.

The Hand Theory stated that dividends have a positive effect on stock prices. The number of dividends to be distributed to shareholders depends on the profit net obtained by the company. If the company has excellent performance, then the net profit earned by the company will increase, and its dividends will be distributed to holders shares will also increase and so otherwise. A high DPR will give an excellent signal to investors because investors consider when DPR is high, and then the cash dividends will also be high shares, so it will attract investors to invest in these companies, and share prices too will increase. Therefore, the second testable null hypotheses:

**H<sub>0</sub>2: The dividend payout ratio does not influence the equity share price.**

The earlier empirical study depicted that there is a positive relation between dividend and share price (Gordon 1959, Desai 1965, Irfan and Nishat 2003; Gitman & Lawrence 2004). The share price portrays the level of profit proclaimed in the related financial year as for its market price. It is inferred by dividing dividend per share with a market value per share. Malhotra and Tandon (2013) found a critical converse relation between dividend yield and market price of the company's stock. The dividend is the return earned by the common stockholders. The dividend yield is an equal return on investment for a share when there is no more capital.

Using quantitative approach, Abdelkarim (2014) examined the determinants of equity share prices of the listed Banks in Amman Stock Exchange for the period of 7 years (2005-2011) and he found that dividend per share, earning per share, book value, price-earnings ratio is positively related to market price per share while size is inversely related to the market price per share. In the same vein, Sanjeet (2009) also revealed that book value per share, dividend per share, earning per share, price-earnings ratio, and the dividend yield is significantly positively related to equity price while the size is inversely associated with equity price.

Yuga (2014) investigated the determinants of the share price of commercial banks listed on the Nepal Stock Exchange Limited for 2006 to 2014. He used the regression model to analyze and employed data from the annual reports of the sampled banks. The results revealed that dividend yield showed a significant negative association with the share price. On the contrary, earning per share and price-earnings ratios has a significant positive association with the share price. The primary conclusion of the study is that, in Nepalese commercial banks, factors that most influences in determining share price are dividend yield are earning per share and price-earnings ratio. Therefore, the third testable null hypotheses:

**H<sub>0</sub>3: There is no relationship between dividend yield and equity share price.**

Mohammed and Usman (2016) examined corporate attributes and share value of listed pharmaceutical companies in Nigeria, utilizing a panel data of five sampled for ten years (2004-2013). The data is taken from the annual reports of the selected firms. They employed multiple regression techniques to examine the effect of corporate attributes on the share price of listed pharmaceutical companies in Nigeria. The study uncovers that profitability, leverage, growth, and firm size factors have a positive and significant association with the share price. This result implies that these factors have an impact on increasing share price. Nonetheless, the association between liquidity and share price is seen as unfavorable, demonstrating that liquidity has no effect on improving the share price of listed pharmaceutical companies in Nigeria.

Oliver and Caroline (2015) studied the nature and magnitude of the association between earnings per share and market price of ordinary shares in the banking industry in Nigeria from 2004 to. The analysis used multiple regressions from the ordinary least squares method. The stationarity test was conducted using the Augmented Dickey-Fuller (ADF) and Phillip Perrons (PP) tests. The result proves that earnings per share have a strong and positive relationship with the market price of ordinary shares. Earnings per share also granger causes the market price of ordinary shares, and these qualities are sustainable in the long term of the banking sector in Nigeria.

Adekunle, Agbadudu, and Ammeh (2015) examined the factors that impact the share price behavior of several selected companies in the insurance industry in Nigeria. The study examined both company-specific (microeconomic) factors (earnings per share and return on assets) and macroeconomic factors (inflation rate and gross domestic product) that affect share prices in the insurance industry. For examination, five insurance firms were randomly selected from the

industry. The sourced data was derived from the annual reports of the sampled companies and the statistical bulletin of Central Bank of Nigeria running from 2005 – 2014. A panel data multiple regression models were determined and assessed. The results indicate that share price behavior in the Nigerian insurance industry was significantly influenced by the earnings per share and the inflation rate. Conversely, return on assets and gross domestic products were found not significant in estimating the price of the share in the industry.

Umar and Musa (2013) examined the association that exists between firm earnings per share (EPS) and stock prices, which appears to be debatable like any other financial performance measures. Their study examined the relationship between firm EPS and stock prices from 2005 to 2009. They studied 140 Nigerian firms sample that was derived from the 206 total population of firms operated in the Nigerian Stock Exchange (NSE) and employed a simple linear regression model. It was discovered that an insignificant relationship exists between stock prices and firm EPS in Nigeria. It was found that firm EPS has no prescient power on stock prices. They, nonetheless, suggested that firm EPS ought not to be depended upon for the expectation of the behavior of stock prices in Nigeria. Therefore, the second testable null hypotheses:

**H<sub>0</sub>4: Price-earnings ratio cannot influence the equity share price.**

## RESEARCH METHOD

### *Population and Sample*

The population of this study comprises all the fifteen deposit money banks listed on the Nigeria Stock Exchange (NSE) fact-book and published in the Nigeria Stock Exchange website as at 30th April 2018 (See Table 1).

**Table 1: Quoted Deposit Money Banks As Of 30th April 2018.**

S/N	The population of the Study
1	Access Bank Plc
2	Diamond Bank Plc
3	Eco Bank Plc
4	FCMB Bank Plc
5	Fidelity Bank Plc
6	First Bank Plc
7	Guaranty Trust Bank Plc
8	Skye Bank Plc
9	Stanbic IBTC Plc
10	Sterling Bank Plc
11	Union Bank Plc
12	United Bank of Africa Plc
13	Wema Bank Plc
14	Zenith International Plc
15	Unity Bank Plc

Source: Compiled by the Researcher from NSE Daily Official List, 2019

The non-probability sampling method and judgmental sampling technique were adopted in this study. The twelve (12) listed deposit money banks represents the sample size for this study,

for a five (5) year period spanning from 2013-2017. The five (5) years period is chosen in order to have a fairly, reasonably, reliable, and up-to-date available financial data (See Table 2).

**Table 2: Sampled Quoted Deposit Money Banks As On 30<sup>th</sup> April 2018.**

S/N	Sample of the Study
1	Access Bank Plc
2	Diamond Bank Plc
3	Eco Bank Plc
4	Fidelity Bank Plc
5	First Bank Plc
6	Guaranty Trust Bank Plc
7	Skye Bank Plc
8	Sterling Bank Plc
9	Union Bank Plc
10	United Bank of Africa Plc
11	Wema Bank Plc
12	Unity Bank Plc

Source: Compiled by the Researcher from NSE Daily Official List, 2019

This study employed secondary panel data, which were sourced from the publications of the Nigeria Stock Exchange (NSE) and the annual report and accounts of the selected listed deposit money banks as well as their respective notes. The data on the market share price was extracted from GTI Securities Ltd. for the periods under study.

*Measurements of Variables*

For this study, the dependent variable is the equity market share price. Market Share Price is the value of a firm’s equity per unit of the outstanding shares. The market price of the share is determined by the forces of demand and supply of a particular security in the market (Zahir & Khanna, 1982; Almumani, 2014). In the present study, arithmetic means of the high and low market price of a share during the financial year of the firm has been taken. The dependent variable of the study is the Market Price of Ordinary Shares, which is calculated as the average price of equity share. MPS is calculated as follows:

$$MPS = \frac{P_H + P_L}{2} \dots\dots\dots (1)$$

Where P<sub>H</sub> is the highest market price, P<sub>L</sub> is the lowest market price during the year, which relates to the ‘t’ period.

**Independent Variables**

**Book Value per Share:** This is measured by the percentage of the equity to a total number of ordinary shares.

**Dividend Payout Ratio:** The dividend payout ratio indicates the percentage share of the net income after taxes and preference dividend paid out on equity shareholders. It can be calculated by dividing the total dividend paid to the equity shareholders by the total profits/earnings available for the shareholders.

**Dividend Yield:** This is the return earned by the common stockholders by way of dividends. The dividend yield is an equal return on investment for a stock when there is no capital gain. The dividend yield is calculated as the percentage of dividend per share to the market price per share.

**Price Earnings Ratio:** It relates to the comparison of market value with its earnings per share. The price-earnings ratio indicates the extent to which its price covers the earnings of each share. It is measured as a percentage of the market price per share to earnings per share.

**Table 3: Summary of Independent Variables**

<b>Independent variables</b>	<b>Measurement</b>
Book Value per Share	Percentage of equity to the total number of ordinary shares
Dividend Payout Ratio	Percentage of earnings paid to shareholders
Dividend Yield	Percentage of dividend per share to the market price per share
Price Earnings Ratio	Percentage of the market price per share to earnings per share

Source: Adapted from Kenneth and Ambrose (2014).

*Model Specification*

In order to establish the association between book per share, dividend payout ratio, dividend yield, price-earnings ratio, and equity share price for selected deposit money banks quoted at the NSE, 2018, the study employed multiple linear regression analysis. The multiple regression model, as adapted from Yuga (2014), is formulated as below:

$$MPS_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 DPR_{it} + \beta_3 DY_{it} + \beta_4 PER_{it} + \varepsilon_i \dots\dots\dots (2)$$

Where:

$MPS_{it}$  = Market price per share for the company in *i* year *t*

$\beta_0$  = Coefficient of the constant variable

$BVPS_{it}$  = Book value per share for the company in *i* year *t*

$DPR_{it}$  = Dividend payout ratio for the company in *i* year *t*

$DY_{it}$  = Dividend yield for the company in *i* year *t*

$PER_{it}$  = Price-earnings ratio for the company in *i* year *t*

$\beta_1, \beta_2, \beta_3, \beta_4$  = Regression coefficients of independent variables

$\varepsilon_i$  = error term.

The study employed descriptive statistics to know the characteristics of the variables, Pearson product-moment correlation; to understand the relationship among the variables and Pooled Ordinary Least Square (OLS) regression technique to test association among theoretically related variables and estimating the effects of one variable on the other with the aid of statistical package (STATA 13). The study carried out some diagnostic tests like Normality, Multicollinearity, and Heteroscedasticity to ensure the reliability of results. The essence is to guard against spuriousness as observed by Granger and Newbold (1974) and Gujarati & Porter (2009) that the presence of these factors usually biases the OLS estimators and thus, any conclusion drawn from the results will be spurious.

The model is considered appropriate because the main purposes of multiple regressions are stated: first, the possibility to determine the independent variables that can best explain the variation of the dependent variable. Second, to recognize whether one of the independent variables is still significant when the other independent variables are controlled (Gujarati & Porter, 2009).

## RESULTS AND DISCUSSION

### Results

Descriptive statistics were used to explore the data collected and to summarize and describe variables under the study. The summary of the descriptive statistics of variables used for the study is presented in Table 4.

**Table 4. Summary of Descriptive Statistics**

Variables	Mean	Std. Dev.	Minimum	Maximum	Skewness	Kurtosis
MPS	4.86	3.04	1.03	10.21	0.364082	1.562487
BVPS	3.84	1.46	1.73	8.79	1.265733	4.429955
DPR	1.01	1.25	0.32	5.7	3.044904	10.62333
DY	0.25	0.19	0.05	0.72	1.091566	3.194719
PER	9.58	1.43	4.21	11.3	-1.505637	5.163138

Source: Output generated using STATA 13. 2019

Descriptive statistics results from table 4 showed that the mean of the market price per share is 4.86, with a standard deviation of 3.04 while the minimum and maximum values are 1.03 and 10.21, respectively. However, the minimum and the maximum of book value per share between the sample companies are 1.73 and 8.79, respectively, with a standard deviation of 1.46 while the mean value of book value per share is 3.84. It was also revealed that the mean of the dividend payout ratio of the sampled firms is 1.01, with a standard deviation of 1.25, the minimum and maximum values are 0.32 and 0.72, respectively. Moreover, the table showed that the mean of the dividend yield of the firms is 0.253, with a standard deviation of 0.1907 while the minimum and maximum values are 0.05 and 0.72, respectively. However, the descriptive results also showed that the average price-earnings ratio is 9.58, with a standard deviation of 1.43 while the minimum and maximum values are 4.21 and 11.3, respectively.

### Correlation Analysis

Table 5 presents the correlation matrix of the dependent and independent variables, from which it can be observed that two explanatory variables dividend per share and price - earnings ratio are positively correlated with the market price per share.

**Table 5. Correlation Matrix of Dependent and Independent Variables**

	MPS	BVPS	DPR	DY	PER
MPS	1				
BVPS	-0.1398	1			
DPR	0.3040	0.0721	1		
DY	-0.3869	0.2462	0.65900	1	
PER	0.5140	0.2375	0.1625	-0.1664	1

Source: Output generated using STATA 13 2019

The book value per share and dividend yield is negatively significant associated with the market share price. It can be seen from Table 4.2 that the highest correlation between

independent variables is 0.65, and that occurred between dividend yield and dividend payout ratio. Judge, Griffiths, Hill, Luthepohl, and Lee (1985) suggest that the simple correlation between independent variables should not be considered harmful until they exceed 0.8 or 0.9 (Gujarati & Porter, 2009).

#### *Normality Test*

The diagnostic test is made to make sure that multiple regression assumptions are not violated. The study, therefore, tests for normality, homoscedasticity, and multicollinearity.

**Table 6. Results of Normality Test**

<b>Variables</b>	<b>N</b>	<b>W</b>	<b>V</b>	<b>Z</b>	<b>Prob &gt; z</b>
MPS	60	0.87737	6.666	4.089	0.00002
BVPS	60	0.89330	5.800	3.789	0.00008
DPR	60	0.42213	31.412	7.430	0.00000
DY	60	0.85319	7.980	4.477	0.00000
PER	60	0.83267	9.095	4.759	0.00000

Source: Output generated using STATA 13 2019

Normality tests assess the likelihood that errors (residuals) should be normally distributed. The distribution of the data can be ignored when the samples comprising of hundreds of observations mentioned Ghasemi and Zahediasl (2012). The results indicated that the data are not normally distributed because the P-values are significant at 1% for the variables. Thus, the null hypothesis (that state the data is normally distributed) is rejected. Based on the central limit theorem, the sampling distribution tends to be normal in large samples (> 30 or 40) regardless of the shape of the data (Field, 2009; Elliott & Woodward, 2007).

#### *Multicollinearity Test*

According to Gujarati & Porter (2009), multicollinearity refers to the existence of a perfect or exact linear relationship between some or all explanatory variables. We conducted this test in order to ascertain the relations which exist between the explanatory variables, which will be detrimental to the outcome of the study. The study tested for the existence of multicollinearity, using the variance inflation factor (VIF) and the tolerance value.

**Table 7. Results of Multicollinearity Test**

<b>Variables</b>	<b>VIF</b>	<b>Tolerance</b>
DY	2.40	0.415994
DPR	2.19	0.456665
PER	1.73	0.729444
BVPS	1.25	0.801915
Mean VIF	1.80	

Source: Output generated using STATA 13 2019

The rule of thumb is that if the variables have VIF above ten and tolerance values less than 0.10, there is a strong indication of the existence of multicollinearity (Gujarati & Porter, 2009). The results from Table 7 below showed that there is no problem with multicollinearity because all the tolerance values are higher than 0.10, while all the VIF are less than 10.

#### *Heteroscedasticity Test*

The homoscedasticity is one of the assumptions of multiple regressions, which states that the variance of the errors must be constant. If the errors do not have constant variance, they are said to be heteroskedastic (Gurajati & Porter, 2009). The Breusch-pagan\cook-Weisberg test was used to test the presence of heteroscedasticity. Accordingly, Table 8 showed the p-value is greater than 5%. This thing shows that there is no evidence for the existence of heteroscedasticity.

**Table 8. Breusch-Pagan / Cook-Weinberg test for Heteroscedasticity**

Test	Chi-square	Prob>chi2
Breusch-Pagan / Cook-Weisberg	2.68	0.1015

Source: Output generated using STATA 13 2019

#### *Regression Results*

The result, as depicted by Table 9, clearly revealed that the overall R-squared value, which is the multiple coefficients of determination, is 0.7416. The proportion of total variation in the dependent variable measured by the market price per share, as revealed by the independent variables jointly is 0.7228. This thing signifies that about 72.28% of the systematic variation in the share price is together explained by changes in the book value per share, dividend payout, dividend yield, and price-earnings ratio. This thing also means that the explanatory power of the model used in the study stands at 72.28%. On the other hand, other factors that have not been captured in the study explain the remaining 27.72%.

**Table 9: Regression Results**

<b>Mode Summary</b>				
No. of Observation	60			
F-statistic	39.46			
Prob. > F	0.0000			
R-square	0.7416			
Adj. R-squared	0.7228			
Root MSE	1.6027			
Variables	Coefficient	Std. Error.	t-statistic	Sig.
	-			
BVPS (Book value per share)	0.0638782	0.1590597	-0.40	0.690
DPR (Dividend payout ratio)	2.114353	0.2453165	8.62	0.000
DY (Dividend yield)	-14.64409	1.695772	-8.64	0.000
PER (Price-earnings ratio)	0.4821264	0.1707537	2.82	0.007
(Constant)	2.056569	1.621544	1.27	0.210

Source: Output generated using STATA 13 2019

## Discussion

### *Book Value per Share and Equity Share Price*

The results of multiple regressions from table 9 showed that the coefficient of book value per share is -0.063, while significant value (p-value) is 0.690, which is higher than the 5% level of significance. This thing, however, showed that there is no significant relationship between book value per share and share price. This result contradicts the findings that there is a significant positive relationship between book value per share and share price, as stated by Sanjeet (2009); Zahir and Khanna (1982). Book Value is shown in the comparison between the stock price and the book value. Price Book Value is used to see the irregularities in stock prices. A low Book Value indicates that the stock price is low if the position of the stock price is below the book value; there is a tendency that the stock price will go to a minimum balance equal to the book value. This thing means that the stock price has an enormous potential to rise so that the return received will increase. Base Price is the initial price of a stock, and the Market Price is the closing price of a stock, so this market price determines the ups and downs of a stock.

Using a quantitative approach, Abdelkarim (2014) examined the determinants of equity share prices of the listed Banks in the Amman Stock Exchange for seven years (2005-2011). His study found that book value, dividend per share, earning per share, price-earnings ratio is positively related to the market price per share while the size is negatively associated with the market price per share. Collins et al. (1999: 57) research results prove that if the company loses, the market believes as if it believes in the book value of equity both as a proxy for expected and future regular income proxy for the approval value. The same results are also revealed by Sanjeet (2009). He found that book value per share, dividend per share, earning per share, price-earnings ratio, and dividend yield are significantly positively related to equity price while the size is inversely associated with equity price. However, this study shows that there is no relation between BV and equity share price. This matter caused by the higher share price set by a company, the amount that will be received by the investors will also be the same as what they invested in the company.

### *Dividend Payout Ratio and Equity Share Price*

The results showed that the dividend payout ratio has a positive relationship with a share price, which means that an increase in one unit of dividend payout ratio will lead to 2.11 increases in the share price. This thing means that the more the dividend payout ratio, the more the share price of listed deposit money banks in Nigeria. The finding is consistent with the results of Uwuigbe, Olowe, Olusegun, and Godswill (2012). The number of dividends to be distributed to shareholders depends on the profit net obtained by the company. If the company has excellent performance, then the net profit earned by the company will increase, and its dividends will be distributed to holders shares will also increase and so otherwise. A high DPR will give an excellent signal to investors because investors consider when DPR is high, then the cash dividends will also be high shares, so it will attract investors to invest in these companies, and share prices too will increase.

The dividend payout ratio (DPR) has a positive and significant effect on price shares in manufacturing companies that have been listed on the listed deposit banks in Nigeria. This is due to information about dividends payout ratio explains the company's dividend policy well thus delivering information about the current state of the company and the company's future expectations of investors and a company that has a high dividend payout ratio is considered companies that have enough funds to finance investment company expansion (retained earnings)

so that it has sufficient funds also to pay dividends to investors. The enhancement of (DPR) dividend payout ratio is likely to increase share prices. According to the zero growth models, the constant growth models and the multiple growth models that increase the dividend accepted will increase the value of shares (Kumar, 2016; Sanjeet, 2009).

#### *Dividend Yield and Equity Share Price*

The dividend yield is significant at the 1% level of significance and is negatively associated with the share price. It revealed that every unit increase in dividend yield would lead to 14.64 decreases in the share price. This result is in line with the findings of Yuga (2014), who found that dividend yield has a significant negative relationship with the share price. The study result contradicts the study of Sanjeet (2009), who found a positive correlation between dividend yield and share price. For their investment and bearing risk in the company, the shareholders receive the dividend, as a portion of the profit after taxes. The amount of the dividend depends upon the dividend policy pursued by a company. The firm dividend policy helps in resolving uncertainty for the investors. The policy also plays an essential role in creating a healthy investment atmosphere. The dividend rate of a company has a significant effect on the market price share.

This result shows that the rate of return on dividends received by shareholders measured through comparison between dividends per share sheet at stock price. This means the influence of dividend yield on stock prices is caused by evaluations that are at value can naturally create a good dividend yield. The higher the dividend yield, the higher the equity price of shares owned by the company (Black & Scholes, 1974).

#### *Price Earnings Ratio and Equity Share Price*

The price-earnings ratio is significant at the 1% level of significance and is positively significant with the share price. This thing means that when the price-earnings ratio increase by one unit, share price will also increase by 0.48. This result is consistent with the study of Yuga (2014); Abdelkarim (2014); Khan and Amanullah (2012). The equity share price and price-earnings ratio relate to the comparison of market value with its earnings per share. The price-earnings ratio (P/E) not only indicates the extent to which its price covers the earnings of each share, but also shows whether the share price of a company is undervalued, overvalued, or fairly valued. All in all, a low P/E suggests that investors are expecting lower earnings growth in the future compared to companies with a higher P/E, and vice versa. In other words, the price-earnings ratio has a significant positive correlation with the company's stock.

This research result means that earnings per share are one indicator or investors' reference in conducting stock analysis before making investment decisions. It also describes profits to be gained by investors over the number of shares in accordance with all the income achieved by the company.

## **CONCLUSION**

Based on the findings of this research, the study concludes that book value per share has no significant relationship with the share price. This thing means that the amount of book value per share does not affect the share price.

The study also concludes that the dividend payout ratio has a significant positive effect on the share price. This thing implies that companies with high dividend payout with mostly share

price. Moreover, the dividend yield has a significant negative relationship with the share price. This thing indicates that the amount of bank dividend yield determines the market share price.

Finally, the study concludes that the banks' price-earnings ratio has a significant positive relationship with the share price. This thing means that the more the price-earnings ratio, the more the share price.

It is recommended that the shareholders in the deposit money banks should be guided by industry financial ratios, especially the profitability measures of price-earnings ratio and dividend pay-out ratio, as they are critical factors in predicting share price behavior.

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## APPENDIX

### 1A. RESULTS OF STATA 13

#### DESCRIPTIVE TEST RESULTS

```
. tabstat mps bvps dpr dy per, statistics( mean max min sd skewness kurtosis )
```

stats	mps	bvps	dpr	dy	per
mean	4.869167	3.841833	1.015167	.2533333	9.5855
max	10.21	8.79	5.7	.72	11.3
min	1.03	1.73	.32	.05	4.21
sd	3.044013	1.46484	1.258604	.1907671	1.4307
skewness	.364082	1.265733	3.044904	1.091566	-1.505637
kurtosis	1.562487	4.429955	10.62333	3.194719	5.163138

#### CORRELATION TEST RESULTS

```
. correlate mps bvps dpr dy per  
(obs=60)
```

	mps	bvps	dpr	dy	per
mps	1.0000				
bvps	-0.1398	1.0000			
dpr	0.3040	0.0721	1.0000		
dy	-0.3869	0.2462	0.6590	1.0000	
per	0.5140	0.2375	0.1625	-0.1664	1.0000

#### NORMALITY TEST RESULTS

```
swilk mps bvps dpr dy per
```

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
mps	60	0.87737	6.666	4.089	0.00002
bvps	60	0.89330	5.800	3.789	0.00008
dpr	60	0.42213	31.412	7.430	0.00000
dy	60	0.85319	7.980	4.477	0.00000
per	60	0.83267	9.095	4.759	0.00000

### MULTICOLLINEARITY TEST RESULTS

. estat vif

Variable	VIF	1/VIF
dy	2.40	0.415994
dpr	2.19	0.456665
per	1.37	0.729444
bvps	1.25	0.801915
Mean VIF	1.80	

### HETEROSKEDASTICITY TEST RESULTS

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of mps

chi2(1) = 2.68

Prob > chi2 = 0.1015

### REGRESSION TEST RESULTS (OLS)

. regress mps bvps dpr dy per

Source	SS	df	MS	Number of obs =	60
Model	405.426856	4	101.356714	F( 4, 55) =	39.46
Residual	141.267999	55	2.56850907	Prob > F =	0.0000
Total	546.694854	59	9.26601448	R-squared =	0.7416
				Adj R-squared =	0.7228
				Root MSE =	1.6027

mps	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
bvps	-.0638782	.1590597	-0.40	0.690	-.3826409 .2548846
dpr	2.114353	.2453165	8.62	0.000	1.622728 2.605978
dy	-14.64409	1.695772	-8.64	0.000	-18.04249 -11.24569
per	.4821264	.1707537	2.82	0.007	.1399284 .8243244
_cons	2.056569	1.621544	1.27	0.210	-1.193079 5.306216

## B. RAW DATA OF SAMPLE BANKS

S/N	COMPANIES	t	Year	DEPENDENT VARIABLE	INDEPENDENT VARIABLES			
				MPS	BVPS	DPR	DY	PER
1	Access Bank Plc	1	2013	7.55	7.83	0.62	0.08	9.94
2		1	2014	6.89	5.37	0.64	0.09	10.08
3		1	2015	8.25	4.55	0.76	0.09	10.49
4		1	2016	8.47	3.73	0.69	0.08	10.48
5		1	2017	7.19	4.39	0.70	0.10	10.49
6	Diamond Bank Plc	2	2013	2.5	4.01	0.78	0.31	9.87
7		2	2014	1.22	5.08	0.69	0.57	10.4
8		2	2015	2.58	5.03	0.76	0.29	10.45
9		2	2016	3.01	5.70	0.89	0.30	10.51
10		2	2017	3.67	5.62	0.97	0.26	10.54
11	Eco Bank Plc	3	2013	1.73	5.83	0.62	0.36	9.03
12		3	2014	1.96	3.37	0.62	0.32	9.19
13		3	2015	2.09	2.25	0.43	0.21	9.32
14		3	2016	3.88	1.73	0.41	0.11	9.51
15		3	2017	3.91	2.29	0.64	0.16	9.57
16	Fidelity Bank Plc	4	2013	9.94	2.93	0.51	0.05	10.11
17		4	2014	8.25	3.83	0.53	0.06	10.16
18		4	2015	8.76	2.03	0.57	0.07	10.19
19		4	2016	9.68	2.70	0.63	0.07	10.28
20		4	2017	9.04	2.37	0.64	0.07	9.91
21	First Bank Plc	5	2013	6.99	3.94	4.01	0.57	9.97
22		5	2014	7.05	3.62	5.08	0.72	10.1
23		5	2015	7.87	3.92	5.03	0.64	10.14
24		5	2016	8.36	4.02	5.70	0.68	10.18
25		5	2017	7.89	4.10	5.62	0.71	10.31
26	Guaranty Trust Bank Plc	6	2013	1.19	8.79	0.82	0.69	9.4
27		6	2014	2.36	6.53	0.76	0.32	9.75
28		6	2015	2.84	6.48	0.86	0.30	9.82
29		6	2016	3.01	6.59	0.86	0.29	9.9
30		6	2017	3.47	6.36	0.77	0.22	9.99
31	Skye Bank Plc	7	2013	1.38	2.43	0.49	0.36	9.47
32		7	2014	1.22	2.40	0.53	0.43	8.96
33		7	2015	3.61	2.95	0.60	0.17	9.99
34		7	2016	2.98	3.05	0.54	0.18	7.92
35		7	2016	2.47	3.00	0.32	0.13	8.01
36	Sterling Bank Plc	8	2013	1.24	4.30	0.51	0.41	10.13
37		8	2014	1.68	3.60	0.5	0.30	10.23

				DEPENDENT VARIABLE	INDEPENDENT VARIABLES			
38		8	2015	2.03	4.90	0.51	0.25	10.95
39		8	2016	2.64	2.30	0.53	0.20	10.11
40		8	2017	2.76	4.10	0.57	0.21	10.56
41	Union Bank Plc	9	2013	6.23	3.89	0.96	0.15	11.3
42		9	2014	6.56	3.85	0.70	0.11	11.12
43		9	2015	7.09	3.95	0.48	0.07	11.05
44		9	2016	6.99	2.13	0.64	0.09	11.25
45		9	2017	8.45	3.04	0.52	0.06	11.3
46	United Bank of Africa Plc	10	2013	9.89	3.37	0.79	0.08	10.62
47		10	2014	8.71	3.24	0.81	0.09	10.57
48		10	2015	9.74	3.47	0.89	0.09	10.57
49		10	2016	10.21	3.00	0.84	0.08	10.81
50		10	2017	9.69	3.24	0.82	0.08	10.97
51	Wema Bank Plc	11	2013	1.05	2.64	0.63	0.60	7.25
52		11	2014	1.03	2.69	0.56	0.54	6.36
53		11	2015	2.22	2.78	0.51	0.23	8.13
54		11	2016	2.04	2.89	0.44	0.22	4.21
55		11	2017	2.46	2.99	0.64	0.26	7.34
56	Unity Bank Plc	12	2013	2.05	2.85	0.63	0.31	7.06
57		12	2014	2.31	3.01	0.64	0.28	7.27
58		12	2015	3.87	3.06	0.63	0.16	6.85
59		12	2016	3.96	3.13	0.56	0.14	7.70
60		12	2017	3.99	3.27	0.51	0.13	6.99