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Dividend Policy and Shareholder's Wealth Maximization of Listed Banks on the Nigerian Stock Market

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Abstract

The study investigates the effect of dividend policy on shareholders' wealth maximization in Nigeria drawing samples from listed banks on the floor of the Nigerian Exchange Group market. Data set employed in this study spans through the periods between 2010 and 2021.The study measured Dividend policy in terms of dividend yield (DIVY), Dividend payout (DIVP), Dividend per share (DIPS), Dividend cover (DICO), and Dividend to Asset ratio (DIPA). While Shareholders' wealth maximization is measured using market value added (MVAA). In line with related extant literature, the study employed the variable of profitability (RETA) to control our model. The study adopted OLS pooled regression model and the study found that dividend yield, dividend payout and dividend to assets has significant effect on the wealth of shareholders of Nigerian listed banks whereas dividend per share and dividend cover has no significant effect on wealth of shareholders of Nigerian listed banks in the Nigerian stock exchange. In the light of this, the empirical result of this study leads to the conclusion that dividend yields significantly decrease shareholders' wealth while dividend to asset ratio significantly improves shareholders' wealth. Hence, the paper recommend that management should concert policies and efforts which will increase profits share to investors rather than redirecting those funds as retained earnings.

Keywords: *Wealth maximization, Dividend policy, Dividend yield, Dividend per share, Dividend cover.*

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Background to the Study

Efficient financial management requires the existence of some objectives or goals because judgment as to whether or not a financial decision is efficient must be made in the light of some objective. Although various objectives are possible but over time, profit maximization and shareholders wealth maximization has gained prominence. Traditionally, it has been argued that the primary objective of a company is to earn profit; hence the objective of financial management is also profit maximisation. This implies that the finance manager has to make his decisions in a manner such that the profits of the concern are maximised. But profit maximization has been under mind by a number of its short comings or failures in the real-life situation. It fails to address fact that there is a direct relationship between risk and profit. Many risky propositions yield high profit. Higher the risk, higher is the possibility of profits. If profit maximisation is the only goal, then risk factor is altogether ignored. This implies that finance manager will accept highly risky proposals so long they give high profits. In practice, however, risk is very important consideration and has to be balanced with the profit objective. Secondly, the profit maximization objective also has failed to take into account the time pattern of returns. Proposal A may give a higher amount of profits as compared to proposal B, yet if the returns of proposal A begin to flow say 10 years later, proposal B may be preferred which may have lower overall profit but the returns flow is earlier and quicker. Thirdly, it fails to take into account the social considerations as also the obligations to various interests of workers, consumers, society, as well as ethical trade practices. If these factors are ignored, a company cannot survive for long. Profit maximisation at the cost of social and moral obligations is a short-sighted policy. This brought about the believe in wealth maximization principle rather than profit maximization principle. It has further been argued that shareholder wealth maximization model holds that the primary goal of the firm is to maximize its market value and implies that business decisions should seek to increase the net present value of the economic profits of the firm as well as the consideration of time value of money and uncertainty of risk. Therefore, if people invest in the shares of a company as an investment with an expectation to gain from increase in wealth of the company. It means that they expect these shares to give them some returns and some appreciation in the market price of the shares. Hence, the value of the share should increase in the share market. It is on the strength of the foregoing that this study is conducted to determine the extent to which dividend policy influences shareholders wealth or value maximization in the Nigerian Stock exchange with specific reference to listed banks.

Statement of Problem

In a bid to ensure continuous public or shareholder's confidence in a given firm and its security or shares, firms or quoted companies in particular has devised a set of rules or methods of arriving at what is due to its shareholders at a particular point in time called dividend policy. Over the years, there has been contention among conclusions from both the theoretical framework point of view and research studies conducted on the relationship between dividend policy and shareholder's wealth. Under the dividend relevant theory, Walter's argued succinctly that the dividends are relevant and have a bearing on the firm's share prices. That means the investment policy cannot be separated from the dividend policy since both are interlinked.

Walter's model shows the clear relationship between the return on investments or internal rate of return (r) and the cost of capital (k). With the conclusion that choice of an appropriate dividend policy affects the overall value of the firm. Myron Gordon, also support the doctrine that dividends are relevant to the share price of a firm. Here the Dividend Capitalization model and assumes that the investors are risk averse i.e. not willing to take risk and prefers certain return to uncertain returns. Therefore, they put a premium on a certain return and a discount on the uncertain returns. The investors prefer current dividends to avoid risk; the risk is the possibility of not getting the returns from the investment.

Whereas, under the dividend irrelevancy theory, Franco Modigliani and Merton Miller in a famous seminal paper in 1961, claimed that neither the price of the firm's stock nor its cost of capital is affected by its dividend policy. According to Modigliani Miller, only the company's ability to earn money and riskiness of its activity can have an impact on its value. The MM approach believed that dividend policy has no effect on the price of the shares of the firm and that it is investment policy that increases the firm's share value. They noted further that investors are satisfied with the firm's retained earnings as long as the return are more than the equity capitalization rate "Ke". Equity capitalization rate is the rate at which the earnings, dividends or cash flows are converted into equity or value of the firm. If the returns are less than "Ke" then, the share shareholders would like to receive the earnings in the form of dividends. Meanwhile the Residual theory of dividend policy purports that dividends must only be distributed after firm undertakes all acceptable investments. The theory proposed three basic steps to determine whether any retained earnings are left to be distributed to shareholders.

Nassim and Zir (2001), Ozuomba, Anicha and Okoye (2016), Shah and Mehta (2016), Chaabouni (2017), Swarnalatha and Babu (2017) found either a positive relationship or a po sitive association between dividend and share prices. Whereas, Asghare (2011) found a negative relationship between stock price volatility and dividend yield and also with dividend payout. Meanwhile, Pani(2011) found that debt-to-equity, size of the firm, and dividend retention has a significant impact on the stock prices and hence, shareholder's wealth. Imran (2011), also suggested that earnings per share, dividend per share, firm's growth are the main indicators of dividend policy.

Form the foregoing, i.e., from both the theoretical framework point of view and prior literatures, it is evident that dividend policy alone does not determine stock prices and hence shareholder's wealth and that other numerous factors are contributory. Also, there is no prior study or theory that has measured the extent to which dividend policy can determine or influence shareholder's wealth. Therefore, this study is conducted to determine the extent to which dividend policy impact shareholder's wealth in the Nigerian Capital Market.

Review of Related Literatures

Conceptual Review

Shareholder's Wealth Maximization

The shareholder value maximization model holds that the primary goal of the firm is to

maximize its market value and implies that business decisions should seek to increase the net present value of the economic profits of the firm. This informs management's investment decisions, financing and dividend decision (Van Horne and Wachowicz 2001). Information on a firms' plan investment and dividend decision are among the major driving forces of the company's share price in the stock market. It is in view of this that Tajirian (1997) argued Othat earnings per share increases, thus value of firm increases. Shareholder's wealth is reprehensive in the market price of the company's share in the stock market (Van Horne et al). Ordinarily, shareholders like cash dividends but they also like the growth in earnings per share that result from ploughing earnings back into the business Khan and Jani 1992).

Shareholder wealth is defined as the present value of the expected future returns to the owners. (i.e., shareholders) of the firm. These returns take the form of periodic dividend payments and or proceed from sales of the shares. Shareholders wealth is measured by the market value of the shares in the stock market or exchange. Therefore, Tomilola, 2020 noted among others that the goal of shareholders wealth is a long-term goal since shareholders wealth is a function of future return to the shareholders.

Dividend Policy

Dividend policy is a set of guidelines a company issues to decide how much of its earnings it will pay out to shareholders. Some evidence suggests that investors are not concerned with a company's dividend policy since they can sell a portion of their portfolio of equities if they want cash. The evidence is called the "dividend irrelevance theory", and it essentially indicates that an issuance of dividends should have little to no impact on stock price. Dividend policy is a financial decision that refers to the proportion of the firm's earnings to be paid out to the shareholders. Here, a firm decides on the portion of revenue that is to be distributed to the shareholders as dividends or to ploughed back into the firm. The amount of earnings to be retained back within the firm depends upon the availability of investment opportunities. to evaluate the efficiency of an opportunity, the firm assesses a relationship between the rate of return on investments "r" and the cost capital "K".

The dividend policy of an organization becomes fundamental as the survival of any business enterprise like a bank depends on its ability to continuously have access to investible funds in order to continue in business in foreseeable future. Thus, financial managers must, therefore, decide on the proportion of earnings that must go into dividend payment depending on the shareholder's preference for immediate cash or capital gains. If a high payout ratio is adopted, the company will likely resort to external borrowing through capital market and likewise, a low payout ratio will cause the company to utilise its retained earnings to take advantage of available investment opportunities for expansion and growth (Pandey 2005). Adefila, Oladapo, and Adeoti (2004), avowed that financing and investment decisions of a company are significantly influenced by the magnanimity of its retained earnings which is determined by its dividend policy.

Quite a significant number of empirical studies has been conducted on the relevance of dividend policy in the financial decision of a firm. Accordingly, Lucky and Julius (2020) are of

the view that the value –relevance proposition of the dividend policy has been in the fore front of financial research since the pioneering work of Miller and Modigliani (1961). See, (Travos, Trigerorgis and Vafeas: 2001).

Miller-Modigliani's argued that in a perfect world, the value of the firm is unaffected by its dividend decisions, so there should not any wealth effect upon the announcement of a change in dividend policy. But contrary to this argument, Ryan, Basley and Lee (2000) are of the view that "it is well known fact that stock prices generally move in the direction of dividend change. their position was aptly supported by Kouki (2009) "explaining that dividend policy has been considered as one of the most difficult controversies of the three issues of long-term financial decision making of the firm". However, a good number of pior empirical studies has explained the relationship between value relevance and dividend policy where in Bhattacharya (1998), Miller and Rock (1985) posited that the presence of signaling effect hypothesis. In their argument, it is stated that there exist asymmentric information between managers and shareholders as the factor that brought about the effect of dividend policy on financial decisions. Despite the numerous published theoretical and empirical studies, we are yet to completely understand the factors that explain the firm pay-out policy Lucky and Julius (2020).

Empirical Literature Review

The study of the relationship between dividend policy and shareholder's wealth maximization has been examined using annual reports and accounts of quoted companies in the stock exchange around the world. The variable studied in these studies are the same but often combined differently. The various findings from these studies have over time shown mixed findings as some studies have been coming up with positive relationship between the dependent and the independent variables while others are coming up with negative relationship resulting in different opinions and conclusions. Lucky et al investigated the effect of dividend policy on shareholder's wealth in Nigeria using data on market price per share (MPS), dividend per share (DPS), net asset per share (NAPS) and earnings per share (EPS) derived from the Nigerian stock exchange (NSE) facts book and daily official list. The data were generated from a sample of twenty-five listed companies purposefully selected for the study. The study adopted the ordinary least regression (OLS), unit root tests, Johnausen contigression and error correction models (ECM) for predicting the dividend policy effect on the shareholder's wealth. The result of the study showed that most of the variables studied except dividend per share had significant relationship with market price per share. While earnings, dividend and net asset per share has a combine effect on the market price of shares. But none of these variables was found to have direct independent influence in the determination of the prices of shares in the stock exchange. Tomilola (2020) examined the relationship between dividend policy and shareholder's wealth of quoted companies in the Nigerian stock exchange (NSE) with three core objectives to determine the impact of retained earnings on the wealth of shareholders; to determine the effect of dividend per share on market price per share and to examine the effect of return on equity on the wealth of shareholders. The study adopted the longitudinal research design and time series data from 2015-2019 collected from annual financial reports and accounts of 20 quoted companies on the Nigerian Stock

Exchange (NSE). The carried out descriptive and inferential analysis including Hausman tests, fixed effect regression model to assess the effect of dividend policy on the wealth of the shareholders. The regression results showed that dividend per share (DPS) and retained earnings (RE) independently has a negative but insignificant relationship with market price per share which is used as a proxy to measure the shareholder's wealth. While return on equity (ROE) has a positive but insignificant relationship with market price per share. Fatoye (2017) examined the impact of dividend policy on shareholders wealth maximization in Dangote Sugar Company utilizing annual reports and accounts of listed companies on the Nigerian Stock Exchange (NSE). The study adopted the descriptive statistics and multiple regression model to analyse data collected. The results of the study showed that there is a positive relationship between dividend payout ratio and shareholders wealth maximization.

Kinde et al examined dividend policy and share price valuation in Nigeria. The study covered a period of Ten years and data from annual account and reports of four major backs listed on the stock exchange (Access Bank, First Bank, United Bank of Africa and Guarantee Trust Bank). The study adopted the ordinary least sequence (OLS) regression model analyzing data obtained the results from the study showed that a significant motive relationship exists between earnings per share and market price.

Chiedu and Okonkwo (2020), Investigated the effect of dividend policy on shareholders wealth creation and firm performance of Ten listed Banks in the Nigeria stock exchange. The study employed descriptive statistics and multiple regression to analyze data obtained from the annual reports of accounts of the ten selected listed Banks. The results from the study showed that there is a positive relationship between dividend payout and shareholders wealth creation.

Theoretical Review

Dividend Relevance Theory

The theory was propounded by Walter (1963) where he suggests that investors are generally risk averse and would rather have dividends today ("bird-in-the-hand") than possible share appreciation and dividend tomorrow. Dividend relevance theory proposes that dividend policy affect the Share Price. Therefore, according to this theory, optimal dividend policy should be determined which will ensure maximization of the wealth of the shareholders. Empirical studies do not support dividend relevance theory. However, actions of market participants tend to suggest that there is some connection between dividend policy and share price. Dividend relevance theory was proposed by:

Walter's Model

Walter through his model further opined that dividends are relevant and have a bearing on the firm's share prices. Also, that the investment policy cannot be separated from the dividend policy since both are interlinked.

Walter's model shows the clear relationship between the return on investments or internal rate of return (r) and the cost of capital (k). The choice of an appropriate dividend policy affects the overall value of the firm.

The efficiency of dividend policy can be shown through a relationship between returns and the cost below:

i. If r>k, the firm should retain the earnings because it possesses better investment opportunities and can gain more than what the shareholder can by re-investing. The firms with more returns than a cost is called the growth firm's and have a zero-payout ratio.
ii. If r<k, the firm should pay all its earnings to the shareholders in the form of dividends, because they have better investment opportunities than a firm. Here, the payout ratio is 100%.
iii. If r=k, the firm's dividend policy has no effect on the firm's value. Here, the firm is indifferent towards how much is to be retained and how much is to be distributed among the shareholders. The payout ratio can vary, from zero to 100%.

Gordon's Model

The Gordon (1963), supported the doctrine that dividends are relevant to the share price of a firm. Also propounded Dividend Capitalization model is used to study the effects of dividend policy on a stock price of the firm. Gordon's model assumes that the investors are risk averse i.e., not willing to take risk and prefers certain return to uncertain returns. Therefore, they put a premium on a certain return and a discount on the uncertain returns. The investors prefer current dividends to avoid risk; the risk is the possibility of not getting the returns from the investment.

But in case, the company retains the earnings; then the investors can expect a dividend in future. But the future dividends are certain with respect to the amount as well as the time, i.e., how much and when the dividends will be received. Thus, an investor would discount the future dividends, i.e., puts less importance on it as compared to the current dividends. According to the Gordon's model, the market value of share is equal to the present value of future dividend. Thus, Gordon's model posits that the dividend plays an important role in determining the share price of firm.

Dividend Irrelevance Theory

The dividend irrelevance theory is the theory propounded by Miller and Modigliani. (1961) where they stated that investors do not need to concern themselves with a company's dividend policy since they have the option to sell a portion of their portfolio of equities if they want cash. Dividend irrelevance theory was first developed by Franco Modigliani and Merton Miller in a famous seminal paper in 1961. The authors claimed that neither the price of the firm's stock nor its cost of capital are affected by its dividend policy. According to Modigliani Miller, only the company's ability to earn money and riskiness of its activity can have an impact on its value.

Miller and Modigliani Hypothesis

According to Miller and Modigliani Hypothesis or MM approach, dividend policy has no effect on the price of the shares of the firm and believes that it is investment policy that increases the firm's share value.

The investors are satisfied with the firm's retained earnings as long as the return are more than the equity capitalization rate "Ke". Equity capitalization rate is the rate at which the earnings, dividends or cash flows are converted into equity or value of the firm. If the returns are less than "Ke" then, the share shareholders would like to receive the earnings in the form of dividends. Thus, the MM approach posits that shareholders are indifferent between the dividends and the capital gains, i.e., the increased value of capital assets.

Objectives of the study

The main objective of this study is to examine the effect of dividend policy on shareholders wealth of listed banks on Nigeria stock exchange.

Other objectives are:

i. To evaluate the effect of dividend yield on the shareholder's wealth of listed banks on Nigeria stock exchange.
ii. To investigate the effect of dividend payout on the shareholder's wealth of listed banks on Nigeria stock exchange.
iii. To examine the effect dividend per share on the shareholder's wealth of listed banks on Nigeria stock exchange.
iv. To evaluate the effect of dividend paid to asset ratio on the shareholder's wealth of listed banks on Nigeria stock exchange.
v. To evaluate the effect of dividend cover on the shareholder's wealth of listed banks on Nigeria stock exchange.

Research Hypotheses

H1: There is no significant effect between dividend yields on the shareholder's wealth of listed banks on Nigeria stock exchange.

H2: There is no significant effect between dividend payout on the shareholder's wealth of listed banks on Nigeria stock exchange.

H3: There is no significant effect between dividends per share on the shareholder's wealth of listed banks on Nigeria stock exchange.

H4: There is no significant effect between dividends paid to asset ratio on the shareholder's wealth of listed banks on Nigeria stock exchange.

H5: There is no significant effect between dividend cover on the shareholder's wealth of listed banks on Nigeria stock exchange.

Data Collected and Analysis

```
___ ____ ____ ____ ____(R)
/__ / ____/ / ____/
___/ / /___/ / /___/  14.0  Copyright 1985-2015 StataCorp LP

Statistics/Data Analysis      StataCorp
                 4905 Lakeway Drive
  MP - Parallel Edition      College Station, Texas 77845 USA
                 800-STATA-PC    http://www.stata.com
                 979-696-4600    stata@stata.com
                 979-696-4601 (fax)
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Notes:
  1. Unicode is supported; see help unicode_advice.
  2. Maximum number of variables is set to 5000; see help set_maxvar.


  Source |    SS      df    MS   Number of obs =    144
-------------+---------------------------------- F(6, 137)    =   5.43
   Model | 1.23701574     6 .206169291  Prob > F    =  0.0000
 Residual | 5.20097338    137 .037963309  R-squared    =  0.1921
-------------+---------------------------------- Adj R-squared  =  0.1568
   Total | 6.4379
8912    143 .045020903  Root MSE    =  .19484

------------------------------------------------------------------------------
   mvaa |   Coef.  Std. Err.   t  P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
   divy | -.0194381  .0044591     -4.36  0.000  -.0282557  -.0106206
   divp | -.0001727  .0001914     -0.90  0.368  -.0005511  .0002057
   dips |  .013085     .0385821     0.34  0.735  -.0632084  .0893784
   dipa |  .1322662   .042676      3.10  0.002   .0478774   .216655
   dico | -.0003125   .0015937    -0.20  0.845  -.0034639  .0028388
   reta | -.0177544     .0063855   -2.78  0.006  -.0303813  -.0051274
   _cons |  .0631618  .026659     2.37  0.019   .0104454  .1158781
------------------------------------------------------------------------------


  Variable |    VIF    1/VIF
-------------+----------------------
   dipa |   3.03  0.329762
   dips |   2.84  0.352708
   divy |   1.50  0.668805
   reta |   1.32  0.754941
   divp |   1.25  0.800271
   dico |   1.11  0.899767
-------------+----------------------
  Mean VIF |   1.84
```

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of mvaa

    chi2(1)   =  90.00
    Prob > chi2 =  0.0000


Fixed-effects (within) regression          Number of obs   =    144
Group variable: croid                      Number of groups =     12

R-sq:                                  Obs per group:
  within = 0.0952                      min =     12
  between = 0.4918                     avg =    12.0
  overall = 0.1734                     max =     12

                    F(6,12 6)     =    2.21
corr(u_i, Xb) = 0.2579            Prob > F     =   0.0463

------------------------------------------------------------------------------
    mvaa |   Coef.  Std. Err.   t  P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
    divy | -.0112386  .0058408  -1.92  0.057  -.0227973  .0003202
    divp | -.0000886  .0001984  -0.45  0.656  -.0004813  .0003041
    dips | -.0031189  .0472871  -0.07  0.948  -.0966987  .0904609
    dipa |  .085012  .0566286   1.50  0.136  -.0270544  .1970784
    dico |  .0004624  .0015435   0.30  0.765  -.0025922  .0035171
    reta | -.0170742  .0060822  -2.81  0.006  -.0291106  -.0050377
   _cons |  .0497871  .0365393   1.36  0.175   -.022523  .1220972
-------------+----------------------------------------------------------------
  sigma_u | .09949538
  sigma_e | .18042469
     rho | .23318659  (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0: F(11, 126) = 3.07          Prob > F = 0.0011


Random-effects GLS regression              Number of obs   =    144
Group variable: croid                      Number of groups =     12

R-sq:                    Obs per group:
  within = 0.0935                  min =     12
  between = 0.5016                   avg =    12.0
  overall = 0.1893                 max =     12
```

```
                    Wald chi2(6)  =   18.15
corr(u_i, X) = 0 (assumed)        Prob > chi2    =   0.0059

------------------------------------------------------------------------------
   mvaa |   Coef.  Std. Err.   z  P>|z|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
   divy | -.0144704  .0051087  -2.83  0.005  -.0244832  -.0044576
   divp | -.0001352  .0001865  -0.72  0.469  -.0005008  .0002304
   dips |  .0088366  .040977   0.22  0.829  -.0714768   .08915
   dipa |  .1082616  .0468678   2.31  0.021   .0164024  .2001208
   dico |  .0002317  .0015068   0.15  0.878  -.0027215   .003185
   reta | -.0170888  .005949  -2.87  0.004  -.0287486  -.005429
   _cons |   .04939  .0419753   1.18  0.239   -.03288   .13166
-------------+----------------------------------------------------------------
  sigma_u | .10150772
  sigma_e | .18042469
    rho | .24042383  (fraction of variance due to u_i)
------------------------------------------------------------------------------

Breusch and Pagan Lagrangian multiplier test for random effects

   mvaa[croid,t] = Xb + u[croid] + e[croid,t]

   Estimated results:
            |    Var   sd = sqrt(Var)
        ---------+-----------------------------
        mvaa |  .0450209    .2121813
           e |  .0325531    .1804247
           u |  .0103038    .1015077

   Test:  Var(u) = 0
             chibar2(01) =  12.19
           Prob > chibar2 =  0.0002

        ---- Coefficients ----
      |   (b)     (B)      (b-B)   sqrt(diag(V_b-V_B))
      |    fe      re     Difference     S.E.
-------------+----------------------------------------------------------------
   divy |  -.0112386  -.0144704    .0032319    .0028313
   divp |  -.0000886  -.0001352    .0000467    .0000677
   dips |  -.0031189   .0088366   -.0119555    .0235999
   dipa |   .085012   .1082616   -.0232496    .0317838
   dico |  .0004624   .0002317    .0002307    .0003348
   reta |  -.0170742  -.0170888    .0000147    .0012658
------------------------------------------------------------------------------
```

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```
chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
      =   1.59
Prob>chi2 =   0.9535
```

Variable	Obs	Mean	Std. Dev.	Min	Max
mvaa	144	.0152778	.2121813	-.16	1.59
divy	144	5.162431	4.468054	0	19.05
divp	144	42.47792	95.17717	-77.33	684.86
dips	144	.5227778	.7110835	0	2.96
dipa	144	.5881944	.6648599	0	2.94
dico	144	3.650556	10.77829	-23.24	112.4
reta	144	1.334792	2.936712	-20.23	9.54

	mvaa	divy	divp	dips	dipa	dico	reta
mvaa	1.0000						
divy	-0.2388	1.0000					
divp	-0.0356	0.2735	1.0000				
dips	0.0399	0.5292	0.1477	1.0000			
dipa	0.1197	0.5177	0.3568	0.7692	1.0000		
dico	-0.0800	-0.0859	-0.0793	-0.0644	-0.1091	1.0000	
reta	-0.1588	0.1927	0.0074	0.3895	0.3691	0.2337	1.0000

Empirical Results and Discussion

The study investigates the effect of dividend policy on shareholders' wealth maximization in Nigeria drawing samples from listed banks on the floor of the Nigerian Exchange Group market. Dividend policy is measured in terms of dividend yield (DIVY), Dividend payout (DIVP), Dividend per share (DIPS), Dividend cover (DICO), and Dividend to Asset ratio (DIPA). Shareholders' wealth maximization is measured using market value added (MVAA). Furthermore, in line with related extant literature, we employed the variable of profitability (RETA) to control our model. Data set employed in this study spans through the periods between 2010 and 2021. Table 4.1 below describes the data in terms of the banks which they belong. Overall, the descriptive statistics provides some insight into the nature of the selected Nigerian listed banks that were employed in this study.

Descriptive Analysis

In this section, we examine the descriptive statistics for both the explanatory and dependent variables of interest. Each variable is examined based on the mean, standard deviation, maximum and minimum. Table 1 below displays the descriptive statistics for the study.

Table 1: Descriptive Statistics

VARIABLES	MEAN	SD	MIN	MAX	NO OBS
MVAA	0.02	0.21	-0.16	1.59	144
DIVY	5.16	4.47	0	19.05	144
DIVP	42.48	95.18	-77.33	684.86	144
DIPS	0.52	0.71	0	2.96	144
DIPA	0.59	0.66	0	2.94	144
DICO	3.65	10.78	-23.24	112.40	144
RETA	1.33	2.94	-20.23	9.54	144

Source: Author (2022)

The table above shows the summary of the descriptive statistics of the study. From the table it is observed that shareholders' wealth maximization as measured in terms of market value added (MVAA) has a mean of 0.02 with a standard deviation of 0.21. In the case of the independent variables, the table shows that dividend yield (DIVY) has a mean of 5.16 and a standard deviation of 4.47. Dividend payout (DIVP) has a mean of 42.48 with a standard deviation of 95.18. Dividend per share (DIPS) has a mean of 0.52 with a standard deviation of 0.71. Dividend to asset ratio (DIPA) has a mean of 0.59 with a standard deviation of 0.66. Dividend coverage (DICO) has a mean of 3.65 with a standard deviation of 10.78. In the case of the control variable, the table shows that profitability measured in terms of return on asset (RETA) has a mean of 1.33 with a standard deviation of 2.94.

Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix), and the results are presented in the table below.

Table 2: Correlation Analysis

	MVAA	DIVY	DIVP	DIPS	DIPA	DICO	RETA
MVAA	1.00						
DIVY	-0.24	1.00					
DIVP	-0.04	0.27	1.00				
DIPS	0.04	0.53	0.15	1.00			
DIPA	0.12	0.52	0.36	0.77	1.00		
DICO	-0.08	-0.09	-0.08	-0.06	-0.11	1.00	
RETA	-0.16	0.19	0.01	0.39	0.37	0.23	1.00

Source: Author's computation (2022)

In the case of the correlation between the variables of interest, the above results show that there exists a negative and moderate association between dividend yield and shareholders' wealth

measured in terms of market value added (-0.24). There exist a negative and weak association between dividend payout and shareholders' wealth measured in terms of market value added (-0.04). There exist a positive and weak association between dividend per share and shareholders' wealth measured in terms of market value added (0.04). There exist a positive and weak association between dividend to asset ratio and shareholders' wealth measured in terms of market value added (0.12). Finally, there exist a negative and weak association between dividend coverage and shareholders' wealth measured in terms of market value added (-0.08). In the case of the control variable, the table shows that there exist a negative and weak association between profitability measured by return on asset and shareholders' wealth measured in terms of market value added (-0.16). However, to test our hypotheses a regression results will be needed since correlation test does not capture cause-effect relationship.

Regression Results

Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, we present a panel data regression and an OLS pooled results in the table below.

Table 3: Regression Result

	MVAA Model (Pooled OLS)	MVAA Model (FIXED Effect)	MVAA Model (RANDOM Effect)
CONS.	0.06 {0.019} **	0.05 {0.175}	0.04 {0.239}
DIVY	-0.02 {0.000} ***	-0.01 {0.057}	-0.01 {0.005} **
DIVP	-0.00 {0.368}	-0.00 {0.656}	-0.00 {0.469}
DIPS	0.01 {0.735}	-0.00 {0.948}	0.01 {0.829}
DIPA	0.13 {0.002}	0.08 {0.136}	0.11 {0.021} **
DICO	-0.00 {0.845}	0.00 {0.765}	0.00 {0.878}
RETA	-0.02 {0.006} **	-0.01 {0.006} **	-0.02 {0.004} **
F-statistics/Wald Statistics	5.43 (0.00) ***	2.21 (0.05) **	18.15 (0.01) ***
R- Squared	0.19	0.10	0.09
VIF Test	1.84		
Heteroscedasticity Test	90.00 (0.000) ***		
Hausman Test		1.59 (0.9535)	

Note: (1) bracket {} are p-values
(2) **, ***, implies statistical significance at 5% and 1% levels respectively

In the table above, we observed from the OLS pooled regression that the R-squared value of 0.19 shows that about 19% of the systematic variations in shareholders' wealth proxied by market value added of the pooled banks over the period of interest was jointly explained by the independent and control variables in the model. The unexplained part of shareholders' wealth can be attributed to the exclusion of other independent variables that can impact on

shareholders' wealth but were captured in the error term. The F-statistic value of 5.43 and its associated P-value of 0.00 shows that the OLS regression model on the overall is statistically significant at 1% level, this means that the regression model is valid and can be used for statistical inference. The table above also shows a mean VIF value of 1.84 which is within the benchmark value of 10, this indicates the absence of multicollinearity, and this means no independent variable should be dropped from the model. Also, from the table above, it can be observed that the OLS results had heteroscedasticity problems since its probability value was significant at 1% [90.00 (0.00)]. The presence of heteroscedasticity clearly shows that our sampled banks are not homogeneous. This therefore means that a robust or panel regression approach will be needed to capture the impact of each firm heteroscedasticity on the results. In this study we adopted the panel regression method using both fixed and random effect models.

The F-statistic and Wald-statistic value of 2.21 (0.05) and 18.15 (0.01) for fixed and random effect models respectively shows that both models are valid for drawing inference since they are both statistically significant at 5%. In the case of the coefficient of determination (R-squared), it was observed that 10% and 9% systematic variations in shareholders' wealth proxied by market value added was explained jointly by the independent and control variables in both models respectively. This therefore implies that less of the variation in shareholders' wealth were explained when compared to the OLS pooled regression. In selecting from the two panel regression estimation results, the Hausman test was conducted, and the test is based on the null hypothesis that the random effect model is preferred to the fixed effect model. A look at the p-value of the Hausman test (0.9535), implies that we should accept the null hypothesis and reject the alternative hypothesis at above 5% or 1% level of significance. This implies that we should adopt the random effect panel regression results in drawing our conclusion and recommendations. This also implies that the random effect results tend to be more appealing statistically when compared to the fixed effect. Following the above, the discussion of the random effect results became imperative in testing our hypotheses. The below is a specific analysis for each of the independent variables using the random effect regression.

Discussion of Findings

Since, the study is an extension of existing studies, only few findings in literature are not in agreement with the current positions of this study. Specifically, we find that dividend yield (Random effect regression = -0.01 (0.005)) as an independent variable to shareholders' wealth appears to have a negative and significant influence on shareholders' wealth. This therefore means we should reject the null hypothesis {$H0_1$: Dividend yield has no significant effect on shareholders' wealth of listed banks in Nigeria}. Surprisingly, this suggests that an increase in dividend yield will significantly decrease shareholders wealth of listed banks during the period under study. This result agrees with prior empirical results which show that dividend yield significantly decrease shareholders' wealth (Ajanthan, (2013), Uwuigbe, Jafaru and Ajayi (2012), Haffees, Shahbaz, and Iftikhar and Buut (2018)). However, we fail to agree with the studies of Thafani and Abdullah, 2014who concluded that dividend yield significantly increases shareholders' wealth.

The result also shows that dividend payout (Random effect regression = -0.00 (0.469)) as an independent variable to shareholders' wealth appears to have a negative and insignificant influence on shareholders' wealth. This therefore means we should accept the null hypothesis {$H0_2$: Dividend payout has no significant effect on shareholders' wealth of listed banks in Nigeria}. This suggests that an increase in dividend payout will insignificantly decrease shareholders wealth of listed banks during the period under study. This result agrees with prior empirical results which show that dividend payout in significantly decrease shareholders' wealth (Haffees, Shahbaz, and Iftikhar and Buut (2018). However, we fail to agree with the studies of Thafani and Abdullah, 2014who concluded that dividend payout significantly increases shareholders' wealth.

In terms of dividend per share, the result also shows that dividend per share (Random effect regression = 0.01 (0.829)) as an independent variable to shareholders' wealth appears to have a positive and insignificant influence on shareholders' wealth. This therefore means we should accept the null hypothesis {$H0_3$: Dividend per share has no significant effect on shareholders' wealth of listed banks in Nigeria}. This suggests that an increase in dividend per share will insignificantly increase shareholders wealth of listed banks during the period under study. This result agrees with prior empirical results which show that dividend per share insignificantly increase shareholders' wealth (Thafani and Abdullah, 2014). However, we fail to agree with the studies of Gul, Sajid, Razzez and Khan, (2012), Timothy and Peter, (2012), who concluded that dividend per share significantly decreases shareholders' wealth.

The result also shows that dividend to asset ratio (Random effect regression = 0.11 (0.021)) as an independent variable to shareholders' wealth appears to have a positive and significant influence on shareholders' wealth. This therefore means we should reject the null hypothesis {$H0_4$: Dividend to asset ratio has no significant effect on shareholders' wealth of listed banks in Nigeria}. This suggests that an increase in dividend to asset ratio will significantly increase shareholders wealth of listed banks during the period under study. This result agrees with prior empirical results which show that dividend to asset ratio significantly increase shareholders' wealth (Gul, Sajid, Razzez and Khan, (2012), Timothy and Peter, (2012),). However, we fail to agree with the studies of Ajanthan, (2013), Uwuigbe, Jafaru and Ajayi (2012), Haffees, Shahbaz, and Iftikhar and Buut (2018) who concluded that dividend to asset ratio significantly decreases shareholders' wealth.

Finally, the result also shows that dividend cover (Random effect regression = 0.00 (0.878)) as an independent variable to shareholders' wealth appears to have a positive and insignificant influence on shareholders' wealth. This therefore means we should accept the null hypothesis {$H0_5$: Dividend cover has no significant effect on shareholders' wealth of listed banks in Nigeria}. This suggests that an increase in dividend cover will insignificantly increase shareholders wealth of listed banks during the period under study. This result agrees with prior empirical results which show that dividend cover insignificantly increase shareholders' wealth (Ajanthan, (2013), Uwuigbe, Jafaru and Ajayi (2012), Haffees, Shahbaz, and Iftikhar and Buut (2018)). However, we fail to agree with the studies of Gul, Sajid, Razzez and Khan, (2012), Timothy and Peter, (2012) who concluded that dividend cover significantly decreases shareholders' wealth.

Conclusion and Recommendation

Managers are in a dilemma about whether to pay a large, small or zero percentage of their earnings as dividends or to retain them for future investments. This is as a result of the need for management to satisfy the various needs of shareholders. For instance, shareholders who need money now for profitable investment opportunities would like to receive high dividends now. On the other hand, shareholders who would like to invest in the future will prefer dividends to be retained by the company and be reinvested which connote that dividend policy has potential implications on share prices. In the light of this, the empirical result of this study leads to the conclusion that dividend yields significantly decrease shareholders' wealth while dividend to asset ratio significantly improves shareholders' wealth. Hence, we recommend that management should concert policies and efforts which will increase profits share to investors rather than redirecting those funds as retained earnings.

References

Adefila, J. J., Oladapo, J. A. & Adeoti, J. O. (2004). *The effect of' dividend policy on the market rice of share in Nigeria: Case study of fifteen quoted companies,* Retrieved June, 13, 2022 from: http://unilorin.edu.ng/publications/adeotijo.

Ajanthan, A. (2013). The relationship between dividend payout and firm profitability: A study of listed hotels and restaurant companies in Sri Lanka, *International Journal of Scientific and Research Publications*, *3*(6), 1-6.

Chiedu, C. O, & Okonkwo, N. I. J. (2020). Effect of dividend policy on shareholders wealth creation and firm performance of listed Bank in Nigeria. *Journal of Accounting and financial Management,* E – ISSN 2804 – 8856 P – ISSN 2695 – 2211 6 (3).

Fatoye, S. K. (2017). Impact of dividend policy on shareholder wealth maximization in Dangote Sugar Company of Nigeria, University of Bingham, *Journal of Accounting and Business.*

Gordon, M. J. (1963). Optimal investment and financing policy, *The Journal of Finance*. 18(2), 264 – 272.

Gul, S., Sajid, M., Razzaq, N., Iqbal, M. F., & Khan, M. B. (2012). The relationship between dividend policy and shareholder's wealth, *Economics and Finance Review*, *2*(2), 55-59.

Hafeez, M. M., Shahbaz, S., Iftikhar, I., & Butt, H. A. (2018). Impact of dividend policy on firm performance, *International Journal of Advanced Study and Research Work*, *1*(4), 1-5.

Kinde, A, Uwaloma, U, Olubukola, R. U, Osariemen A & Sylvester, O. (2017): Dividend Policy and Shareholder's Price Valuation in Nigeria Banks, *Euro economica, vol. 36 no 6.*

Lucky, E. U, & Julius, O. E (2020). Effect of dividend policy on shareholder's wealth in Nigeria (1986-2016), *European Journal of Accounting, Auditing and Finance Research, 8(6), 15-27.*

Miller, M. H. & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *American Economic review*, 48 (3), 261–297.

Nassim, Z. W. (2001). Dividend charges and future profitability, *Journal of finance, 56, & 2111 – 2133.*

Ozuomba, C. N., Anichebe, A. & Okoye, S. (2010). The effect of dividend policies on wealth maximization – *a study of selected Plcs, Cogent Business & Management.* 3 (1), 1 – 15.

Pani, U (2008). *Dividend policy and stock behavior in Iranian corporate sector: a panel data approach*, relined from Iranian institute of Technology". http:/ssm.com/abstract = 1216171.

Pandey, I. M. (2005). *Financial management* (*9th Edition*), Vikas publishing house PVT Ltd

Petty, W. J. (2007). *Basic financial management*, London, Englewood cliffs.

Shaho, S. S., & Moehta, D. (2016). Impact of dividend announcement on share prices, *Anvesha*, (2), 10 – 12.

Swamalatha, C., & Babu, K. S. (2017), stock prices reaction to dividend announcement on selected banking/stock, *Asian Journal of Research in social sciences and Humanities.* 7(1) 1043 -1058 org/10.5958/2249 – 2315.2017.000417.

Thafani, A. R. & Abdullah, M. (2014). Impact of dividend pay-out on corporate profitability: Evident from Colombo stock exchange, *Advances in Economics and Business Management*, 1(1), 27-33

Timothy, M. M. & Peter, O. (2012). The relationship between dividend payout and firm performance: A study of listed companies in Kenya, *European Scientific Journal*, 8, 199 – 215

Travios, N., Trigeorgis, h., & Vafeas, N. (2001). Shareholders wealth effect of dividend policy charges in an emerging stock market: The case of Cyprus, *Multinational Finance Journal*, 5(2), 87 -112.

Walter, J. E. (1963). Dividend policy: Its influence on the value of enterprise, *The Journal of Finance, 18(2) 280-291. https://doi.org/ 101111/j.1540-6261.1963.tb00724.x*

Anexum 1

Data collected and Analysis

```
___ ____ ____ ____ ____(R)
/__ / ____/ / ____/
___/ / /___/ / /___/ 14.0 Copyright 1985-2015 StataCorp LP
Statistics/Data Analysis StataCorp
4905 Lakeway Drive
MP - Parallel Edition College Station, Texas 77845 USA
800-STATA-PC http://www.stata.com
979-696-4600 stata@stata.com
979-696-4601 (fax)

Single-user 8-core Stata perpetual license:
Serial number: 10699393
Licensed to: Idorenyin Okon
IdRatios Nigeria

Notes:
1. Unicode is supported; see help unicode_advice.
2. Maximum number of variables is set to 5000; see help set_maxvar.


Source | SS df MS Number of obs = 144
-------------+---------- F(6, 137) = 5.43
Model | 1.23701574 6 .206169291 Prob > F = 0.0000
Residual | 5.20097338 137 .037963309 R-squared = 0.1921
-------------+---------- Adj R-squared = 0.1568
Total | 6.4379
8912 143 .045020903 Root MSE = .19484

------------------------------------------------------------------------------
mvaa | Coef. Std. Err. t P>|t| [95% Conf. Interval]
-------------+----------------------------------------------------------------
divy | -.0194381 .0044591 -4.36 0.000 -.0282557 -.0106206
divp | -.0001727 .0001914 -0.90 0.368 -.0005511 .0002057
dips | .013085 .0385821 0.34 0.735 -.0632084 .0893784
dipa | .1322662 .042676 3.10 0.002 .0478774 .216655
dico | -.0003125 .0015937 -0.20 0.845 -.0034639 .0028388
reta | -.0177544 .0063855 -2.78 0.006 -.0303813 -.0051274
_cons | .0631618 .026659 2.37 0.019 .0104454 .1158781
------------------------------------------------------------------------------
```

```
 Variable |    VIF    1/VIF
-------------+----------------------
    dipa |   3.03  0.329762
    dips |   2.84  0.352708
    divy |   1.50  0.668805
    reta |   1.32  0.754941
    divp |   1.25  0.800271
    dico |   1.11  0.899767
-------------+----------------------
 Mean VIF |   1.84

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
     Ho: Constant variance
     Variables: fitted values of mvaa

     chi2(1)   =  90.00
     Prob > chi2 =  0.0000


Fixed-effects (within) regression        Number of obs   =    144
Group variable: croid              Number of groups =     12

R-sq:                    Obs per group:
   within = 0.0952                  min =     12
   between = 0.4918                   avg =    12.0
   overall = 0.1734                  max =     12

                     F(6,12 6)     =    2.21
corr(u_i, Xb) = 0.2579            Prob > F     =   0.0463

------------------------------------------------------------------------------
    mvaa |   Coef.  Std. Err.   t  P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
    divy | -.0112386  .0058408  -1.92  0.057  -.0227973  .0003202
    divp | -.0000886  .0001984  -0.45  0.656  -.0004813  .0003041
    dips | -.0031189  .0472871  -0.07  0.948  -.0966987  .0904609
    dipa |  .085012  .0566286   1.50  0.136  -.0270544  .1970784
    dico |  .0004624  .0015435   0.30  0.765  -.0025922  .0035171
    reta | -.0170742  .0060822  -2.81  0.006  -.0291106  -.0050377
    _cons |  .0497871  .0365393   1.36  0.175   -.022523  .1220972
-------------+----------------------------------------------------------------
   sigma_u | .09949538
   sigma_e | .18042469
     rho | .23318659  (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

```
F test that all u_i=0: F(11, 126) = 3.07          Prob > F = 0.0011


Random-effects GLS regression          Number of obs   =    144
Group variable: croid              Number of groups =     12

R-sq:                    Obs per group:
  within = 0.0935                  min =     12
  between = 0.5016                   avg =    12.0
  overall = 0.1893                 max =     12

                    Wald chi2(6)  =   18.15
corr(u_i, X)  = 0 (assumed)         Prob > chi2    =   0.0059

------------------------------------------------------------------------------
   mvaa |   Coef.  Std. Err.   z  P>|z|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
   divy | -.0144704  .0051087  -2.83  0.005  -.0244832  -.0044576
   divp | -.0001352  .0001865  -0.72  0.469  -.0005008  .0002304
   dips |  .0088366  .040977   0.22  0.829  -.0714768   .08915
   dipa |  .1082616  .0468678   2.31  0.021   .0164024  .2001208
   dico |  .0002317  .0015068   0.15  0.878  -.0027215   .003185
   reta | -.0170888  .005949  -2.87  0.004  -.0287486  -.005429
   _cons |   .04939  .0419753   1.18  0.239   -.03288   .13166
-------------+----------------------------------------------------------------
  sigma_u | .10150772
  sigma_e | .18042469
    rho | .24042383  (fraction of variance due to u_i)
------------------------------------------------------------------------------

Breusch and Pagan Lagrangian multiplier test for random effects

   mvaa[croid,t] = Xb + u[croid] + e[croid,t]

   Estimated results:
           |    Var   sd = sqrt(Var)
      ---------+-----------------------------
        mvaa |  .0450209    .2121813
           e |  .0325531    .1804247
           u |  .0103038    .1015077

   Test:  Var(u) = 0
             chibar2(01) =  12.19
           Prob > chibar2 =  0.0002
```

```
        ---- Coefficients ----
      |   (b)     (B)      (b-B)   sqrt(diag(V_b-V_B))
      |    fe      re     Difference     S.E.
-------------+----------------------------------------------------------------
   divy |  -.0112386  -.0144704    .0032319    .0028313
   divp |  -.0000886  -.0001352    .0000467    .0000677
   dips |  -.0031189   .0088366   -.0119555    .0235999
   dipa |   .085012   .1082616   -.0232496    .0317838
   dico |  .0004624   .0002317    .0002307    .0003348
   reta |  -.0170742  -.0170888    .0000147    .0012658
------------------------------------------------------------------------------
           b = consistent under Ho and Ha; obtained from xtreg
    B = inconsistent under Ha, efficient under Ho; obtained from xtreg

 Test: Ho: difference in coefficients not systematic

       chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          =    1.59
      Prob>chi2 =   0.9535


 Variable |    Obs    Mean  Std. Dev.    Min    Max
-------------+--------------------------------------------------------
   mvaa |    144  .0152778  .2121813    -.16    1.59
   divy |    144  5.162431  4.468054     0   19.05
   divp |    144  42.47792  95.17717   -77.33   684.86
   dips |    144  .5227778  .7110835     0    2.96
   dipa |    144  .5881944  .6648599     0    2.94
   dico |    144  3.650556  10.77829   -23.24   112.4
   reta |    144  1.334792  2.936712   -20.23    9.54



      |   mvaa   divy   divp   dips   dipa   dico   reta
-------------+----------------------------------------------------------------
   mvaa |  1.0000
   divy | -0.2388  1.0000
   divp | -0.0356  0.2735  1.0000
   dips |  0.0399  0.5292  0.1477  1.0000
   dipa |  0.1197  0.5177  0.3568  0.7692  1.0000
   dico | -0.0800 -0.0859 -0.0793 -0.0644 -0.1091  1.0000
   reta | -0.1588  0.1927  0.0074  0.3895  0.3691  0.2337  1.0000
```