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Dividend Policy and Firm Performance: A Study of Selected Banks in Nigeria

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Abstract. This study investigated how the dividend policy affected the performance of a few Nigerian banks. Secondary data from the annual statements of the selected banks for the years 2010 to 2021 were used in the study. The study was guided by relevant specific objectives and hypotheses which were to test for the long run effects of the dividend policy and consider the effects of other determinants of bank performance for the period under study. The various preliminary tests and diagnostic tests were conducted to confirm that the data which was time series in nature were fit for empirical uses to avoid spurious results. The study utilized panel regression with the aid of E-views statistical package. The panel regression results indicates that the coefficient of the variables DEPOSIT, ASSET and Dividend indicate positive signs and are significant statistically. The positive coefficient of the variable DEPOSIT indicates that a percentage increase in the banks deposit increases the banks' performance by 15%. For the variables ASSET and Dividend, the results show that a percentage increase in the bank's asset and dividends increases the banks' performance by 002% and 02% respectively. The results therefore confirmed that dividend policy by banks can enhance the overall performance of selected quoted Nigerian banks.

Keywords: Dividend policy, firm performance, banks, Nigeria

1. Introduction

In corporate finance, dividend policy continues to be one of the most contentious topics. Modigliani and Miller (2015) seminal research demonstrated that, where investment policy was held constant and there was no friction in the market, dividend policy had no impact on shareholders' wealth. This position appears to have led to controversies that surround dividend policy (Olarewaju, Migiro & Sibanda, 2018). Therefore, the Miller and Modigliani forecast has generated ongoing discussion and a conundrum over how enterprises can select a suitable and implementable dividend policy, particularly in emerging nations like Nigeria where there is no ideal market situation. Choosing a suitable and implementable dividend policy led to the emergence of various competing theoretical and empirical researches which explained why firms paid or did not pay dividends (Idewele & Murad, 2019). After decades of non-stop research, Idewele and Murad (2019) stated that dividend policy was still listed as one of the top ten crucial unresolved issues in the world of finance. As opined by Uwuigbe, Jafaru and Ajayi (2012), dividend policy continues to be one of the most crucial financial policies, not just from the company's perspective but also from the shareholders', customers', employees', regulators', and government's perspectives..

Over the years, a number of ideas have been put forth to determine whether there is a connection between

dividend policy and a company's financial performance. Idewele and Murad (2019) stated that there had however, not been any consensus on it. For instance, Miller and Modigliani (2016) questioned the importance of dividend policy and came to the conclusion that it had no impact on the value of the company or its financial performance. Meanwhile, Black (2016 averred that the more closely we examine the dividend picture, the more it resembles a puzzle with pieces that don't fit together.

In Nigeria, a number of local studies on dividend policy have also been conducted.. For example, Uwuigbe, Jafaru and Ajayi (2016) explored the connection between Nigerian listed companies' financial performance and dividend payout. However, they did not examine the nature and timing of the dividend policy; rather, they examined dividend policy as a determinant of ownership structure, company size, and dividend payouts.. Idewele and Murad (2019) did a study to look into the connection between Nigerian deposit money banks' dividend policies and financial success. However, the study's exclusive focus was on dividend yield and payout ratio. They did not examine the frequency or format of dividend distributions. Ebire, Mukhtar and Onmonya (2018) investigated the effect of dividend policy on the performance of listed oil and gas firms in Nigeria. They focused on dividend payout ratio, retained earnings and dividend yield. They did not look at the timing and form of dividend payments. Simon-Oke and Ologunwa (2016) evaluated the effect of dividend policy on the performance of corporate firms in Nigeria. They focused on return on investment (ROI), earnings per share (EPS) and dividend per share (DPS). They did not look at dividend payout ratio, the timing and form of dividend payments. Oladipupo (2017) investigated the impact of dividend policy on shareholders wealth in Nigeria. He only concentrated on dividend payout but not on timing and form of dividend payments.

Research based on market prices, accounting ratios, and total factor profitability are the three basic methods to firm performance in social science research. (Bocean & Barbu as cited in Pintea & Fulop, 2015.). Various earlier studies employed various metrics to assess how well a company was performing. The majority of them used accounting-based performance indicators like Return on Assets (ROA), Return on Equity (ROE), and Economic Value Added (EVA), as well as market-based performance measures like Tobin's Q. The bulk of empirical studies' equivocal findings have been attributed to the use of one of the aforementioned measures of firm performance. (Pintea & Fulop, 2015). The current study evaluates the impact of dividend policy on the performance of a selected listed Nigerian banks.

2. Literature Review

Dividends are sums of money that businesses pay to their shareholders. It is an after-tax profit that has been allocated to the company's owners (Eke & Okoh, 2018). A company's dividend policy specifies how profit should be distributed between it and its remaining owners. It is a clarification of the percentage of earnings that should be distributed as a dividend to shareholders, taking into account the organizational environment and their expectations. (Oladipupo, 2017).

It was Miller and Modigliani (1961) demonstrated that the value of a corporation was not impacted by dividends by presenting the M&M hypothesis and the dividend policy irrelevance argument. They reasoned that the effect was not necessarily caused by the payout itself but rather by the information converged by the dividend changes. According to Simon-Oke & Ologunwa (2016), dividend irrelevance theory, a company's stock price or cost of capital are unaffected by its dividend policy, and the value of the company is determined by the income it generates from its assets rather than how it is distributed between dividends and retained earnings.

The dependent variable, firm performance, is measured in numerous empirical research using other accounting techniques. (Al-Sa'eed, 2018). In various research, several metrics have been employed to assess corporate performance. When compared to a benchmark rate of return equal to the risk-adjusted weighted average cost of capital, ROA and ROE metrics, which are accounting-based statistics, are typically seen as an effective indicator of the company's profitability and the business. (Al-Matari, Al-Swidi & Fadzil, 2016). They are unique measurements of the profit before tax divided by total assets and profit after tax divided by equity respectively, and they can be easily obtained from the firm’s annual report. Tobin’s Q is a market-based measurement which is characterized by its forward-looking aspect and its reflection of the expectations of the shareholders concerning the firm’s future performance (Wahla, ShahSyed & Hussain, 2016). ROA and ROE were employed as stand-ins for firm performance in this study. Tobin's q was also used to gauge firm performance as a robustness assessment.

3. Research Methodology

This study covers the period from 2010 to 2021. Secondary data are used. They are to be obtained from Central Bank of Nigeria Statistical bulletin, the Nigerian stock exchange fact book, and publication from the Federal Office of Statistics and banks annual report.

3.1 The Variable Under Study

The variables of interest for the study include, bank's total profit after taxation; banks dividend , total bank equity declared during the periods under review, return on assets and return on equity. .

3.2 Model Specification

To estimate of the effect of dividend policy on banks performance in Nigeria from 2010-2021: a study of ten deposit money banks using total bank profit as a proxy for performance could be stated as follows

$$PROFIT = F(DEPOSIT, EQUITY, LOAN, INTEREST, ASSET, DIVIDE$$

The equation can be stated in linear relationship as follows:

$$PROFIT = \alpha_0 + \alpha_1 DEPOSIT + \alpha_2 EQUITY + \alpha_3 LOAN + \alpha_4 INTEREST + \alpha_5 ASSET + \alpha_6 DIVIDEND + U_t$$

where μ_t = Error term

Set definition

PROFIT = Profit after tax declared by banks in their balance sheet

DEPOSIT = Banks deposits

EQUITY = Banks return on equity

LOAN = Banks loan

ASSET = Banks total asset declaration

DIVIDEND = Banks earning per share

3.3 Estimation Procedure

The Panel model

The PROFIT model is estimated within a Generalized Linear Model (GLM) framework. First, it is assumed that strict exogeneity of explanatory variables conditional on unobserved, that strict exogeneity of explanatory variables conditional on unobserved effects obtains.

Second, the fixed effects estimator is well behaved asymptotically if the standard rank condition on the matrix of time-demeaned explanatory variables holds.

In this study, a Generalised Least Square (GLS) estmation procedure is adopted. The fixed effects models are considered. The fixed effects model is simpler to conduct and is defined according to the following regression model:

$$Y_{it} = \alpha_i + \beta' X_{it} + \varepsilon_{it} \quad \text{.....(3)}$$

where i= 1……N; t=1……N

Y_t indicates the dependent variables while X_t determines the vector of k explanatory variables. α i= 1….N are constant coefficients specific to each institutions (banks). Their presence assumes that differences across the considered banks appear by means of differences in the constant term. These individual coefficients are estimated together with the vector of coefficients β.

In order to validate the fixed effects specification, the question is to prove, according to the empirical application, that the individual coefficients α_i, i=1…N are not all equal

This corresponds to the following joint null hypothesis:

Ho: $\alpha i = \ldots \alpha_N = \alpha$ …… (4)

It is rather the acceptance of the alternative hypothesis which is interesting if we want to differentiate between the situations in each bank considered in the sample and confirms the existence of significant heterogeneity across banking sector.

The assumption made about the intercept variable (αi) had implications for the consistency and efficiency properties of estimates of β' in equation (3).

In the share price equation, the group-specific term reflects idiosyncratic preferences or characteristics of each bank. If the banks specific effect is assumed constant (but allowed to differ across units) a fixed effects (FE) model is generated.

Assuming heterogeneity across units in equation (1) implies that the effect of all omitted variables is the same for a given cross sectional unit through time but varies across cross-sectional units for a given point in time.

The appropriate statistic of the test is a Fisher distributed one with $\left(N-1, \sum_{i=1}^{N} T_i - N - K\right)$ degrees of freedom under the null hypothesis and is defined as follows:

$$F = \frac{SSR_0 - SSR_1 \sum_{i=1}^{N} T_i - N - K}{SSR_1 N - 1}$$

…… (5)

where SSR_0 and SSR_1 are, respectively, the sum of squared residuals provided by the estimation of the constrained model (under the null hypothesis that no individual specific coefficients are considered) and the sum of squared residuals relative to the fixed effects model (equation (3)) is obtained.

4. Data Analysis and Result

4.1 Descriptive Statistics

The descriptive statistics for the variables under consideration are therefore presented in table 1 below:

Table 1: The Descriptive statistics

	PROFIT	DEPOSIT	EQUITY	LOAN	INTEREST	ASSET	DIVIDEND
Mean	1634118.	4473263.	8.379797	30058508	56416182	1.53E+08	11208294
Median	11096.00	41236.00	0.185000	175657.0	417406.0	762881.0	47621.00
Maximum	45475040	75819628	248.0000	5.63E+08	7.13E+08	1.07E+10	2.05E+08
Minimum	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Std. Dev.	5710103.	11920566	31.38972	89918054	1.24E+08	9.94E+08	34859796
Skewness	5.591270	4.157023	5.546930	4.496960	3.221475	10.25586	4.109120
Kurtosis	37.40324	22.53686	36.76185	24.03934	14.46797	108.8666	20.04897
Jarque-Bera	6379.583	2197.710	6156.815	2552.279	843.5011	56688.74	1746.258
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	1.91E+08	5.23E+08	980.4363	3.52E+09	6.60E+09	1.78E+10	1.31E+09
Sum Sq. Dev.	3.78E+15	1.65E+16	114296.5	9.38E+17	1.80E+18	1.15E+20	1.41E+17
Observations	117	117	117	117	117	117	117
Cross sections	10	10	10	10	10	10	10

Source: *Authors' Computation from the E-views*

From the table 1 above, the panel descriptive statistics for the variables under consideration indicated that from 2010 to 2021, all the variables under study showed an averaged positive mean values with 117 observations and 10 cross sections. The standard deviation indicated that the highest standard deviation is recorded by the variable LOAN, while the least standard deviation is recorded by variable INTEREST. The Jarque-Bera (JB) test of normality for the variables under consideration revealed that all the variables are significant at 5% level. This shows that the variable are normally distributed.

The Hausman test

Before the estimation of a panel regression, the Hausman test is used to make a choice between the fixed effect model and the random effect model of panel data analysis.

The Hausman test

Redundant Fixed Effects Tests			
Pool: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.639490	(9,101)	0.0006

Source: *Authors' Computation from the E-views*

From the fixed effect test results, the null hypothesis is therefore rejected since both P-Values are less than the significance values of 1, 5 and 10 percent respectively. This implies that the fixed effect model is superior to the random effects model, for explaining the banks performance.

Panel unit root /stationarirty test

The results of the panel unit root tests are shown in Table below. The test held that all banks have unit roots with regards to their variables against the alternative hypothesis that at least some panel members are without unit root.

Table 3: The panel Unit root test

Levin, Lin & Chu t*			Cross-section		Levin, Lin & Chu t*			
LEVEL DIFFERENCE					FIRST DIFFERERNCE			
Variable	Statistics	Probability	10		Statistics	Probability	Cross-section	
PROFIT	-1.29827	0.0971	10	108	-8.33005	0.0000	10	
DEPOSIT	-0.77132	0.2203	10	105	-3.76197	0.0001	10	93
EQUITY	23.4093	1.0000	10	107	-95.1521	0.0000	10	94
LOAN	0.58100	0.7194	10	108	-8.12541	0.0000	10	99
INTEREST	0.58695	0.7214	10	104	-2.76582	0.0028	10	106
ASSET	-1.74979	0.0401	10	105	-4.97668	0.0000	10	96
DIVIDEND	-4632.11	0.0000	10	105	-5.05441	0.0000	10	94

Source: *Authors' Computation from the E-views*

The test reveals that five of the variables are not stationary at level difference. Only one variable is stationary at level difference. At first difference, all the variables are stationary e at 5 percent significance level for the common and individual effect tests.

Panel Cointegration test

Having established with the panel unit root test that the variables are integrated, it has become essential to perform a co-integration test. Table 5.8 presents the Padroni panel co-integration test results.

The panel cointegration test results

Pedroni Residual Cointegration Test					
Alternative hypothesis: common AR coefs. (within-dimension)					
				Weighted	
		Statistic	Prob.	Statistic	Prob.
Panel v-Statistic		-2.417924	0.9922	-3.335372	0.9996
Panel PP-Statistic		2.466898	0.9932	-7.486486	0.0000
Panel ADF-Statistic		3.426418	0.9997	-2.133784	0.0164
Alternative hypothesis: individual AR coefs. (between-dimension)					
		Statistic	Prob.		
Group PP-Statistic		-12.17022	0.0000		
Group ADF-Statistic		-2.980533	0.0014		

Source: *Authors' Computation from the E-views*

The results from the Padroni's statistics indicates that the null hypothesis that there is no cointegration between the variables is rejected. This implies that there is long run relationship between banks' profit, and the independent variables.

The panel regression result

The regression results are shown in the table below. As already indicated, the banks' performance are estimated using the fixed effect technique. All the models are estimated to produce robust standard errors. The inclusion of robust standard errors helps in containing the econometric problems of heteroscedasticity (Green, 2008).

The panel regression results

Dependent Variable: PROFIT?				
Method: Pooled EGLS (Cross-section weights)				
Included observations: 12				
Cross-sections included: 10				
Total pool (unbalanced) observations: 117				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	513676.9	106058.7	4.843326	0.0000
DEPOSIT	0.159969	0.030249	5.288368	0.0000
EQUITY	-351.5450	852.9261	-0.412163	0.6811
LOAN	0.001089	0.005998	0.181569	0.8563
INTEREST	-0.003728	0.001981	-1.881909	0.0627
ASSET	0.002293	0.000475	4.831768	0.0000
DIVIDEND	0.021023	0.008752	2.401947	0.0181
	Effects Specification			
Cross-section fixed (dummy variables)				
	Weighted Statistics			
R-squared	0.776215	Mean dependent var		1733274.
Adjusted R-squared	0.742980	S.D. dependent var		3438492.
S.E. of regression	1890925.	Sum squared resid		3.61E+14
F-statistic	23.35508	Durbin-Watson stat		1.690079
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.859893	Mean dependent var		1634118.
Sum squared resid	5.30E+14	Durbin-Watson stat		0.878173

From the panel regression results in table above, the coefficient of the variables DEPOSIT, ASSET and Dividend indicate positive signs and are significant statistically. The positive coefficient of the variable DEPOSIT indicates that a percentage increase in the banks deposit increases the banks' performance by 15%. For the variables ASSET and Dividend, the results show that a percentage increase in the bank's asset and dividends increases the banks' performance by 002% and 02% respectively. The coefficient of the variable LOAN indicates a positive sign and insignificant statistically.

Also, the coefficient of the variable EQUITY shows a negative sign and insignificant statistically; while the coefficient of the variable INTEREST indicates a negative sign and is significant statistically. It shows that a percentage increase increases in the rate of interest reduces banks' performance by -0.003%.

Statistically, the F-statistic is interpreted indicates that the overall estimate of the regression have a good fit and is adequate statistically. The R^2 - (R-squared) which measures the overall goodness of fit of the entire regression shows the value as follows 0.776215. The adjusted R^2 value is0.74298. It shows that the independent variables explain the dependent variable to the tune of 74%. The Durbin Watson statistics result with a value of DW (1.690079) indicates that there is no auto correlation among the variables under consideration and the overall regression is significant statistically.

The panel cross section fixed effect results

Fixed Effects (Cross)	
_ZENITH--C	-710829.5
_FIRST--C	-1284313.
_POLARIS--C	322701.8
SUMMA_FCMB--C	-507376.7
_STANBIC--C	4990906.
_FIDELITY--C	-1249501.

_UBA--C	-509642.3
_UNION--C	-499898.6
_ENTERP--C	-512469.7
_ACCESS--C	-224550.9

On the fixed effect of the individual banks under consideration, the coefficients of the individual banks indicate positive for POLARIS and STANBIC banks. The implication is that holding other things constant, the higher level of competitions enjoyed by the banks increases their profit margin to 322701.8 and 4990906 units respectively. On the other hand, the fixed effect coefficient of ZENITH, FIRST, FCMB, FIDELITY, UBA, UNION, ENTERP and ACCESS banks show negative signs. The implication is that holding other things constant, a decrease in the level of competitions enjoyed by the banks decreases their profit margin respectively.

5. Conclusion and Recommendations

From the result of the panel regression, the descriptive statistics of the variables considered for the period covering 2010 to 101 depicted that an averaged positive mean values with 117 observations and 10 cross sections. The standard deviation indicated that the highest standard deviation is recorded by the variable LOAN, while the least standard deviation is recorded by variable INTEREST. The Jarque-Bera (JB) test of normality for the variables under consideration revealed that all the variables are significant at 5% level. This shows that the variables are normally distributed.

The Hausman test results indicates that for explaining the banks' performance the fixed effect model is superior to the random effects model. The panel unit root test result reveals that all the variables are stationary at first difference for the common and individual effect tests. The Padroni panel co-integration test results indicates that the null hypothesis that there is no cointegration between the variables is rejected at 5% significant level. The panel regression results indicates that the coefficient of the variables DEPOSIT, ASSET and Dividend indicate positive signs and are significant statistically. The positive coefficient of the variable DEPOSIT indicates that a percentage increase in the banks deposit increases the banks' performance by 15%. For the variables ASSET and Dividend, the results show that a percentage increase in the bank's asset and dividends increases the banks' performance by 002% and 02% respectively. The coefficient of the variable LOAN indicates a positive sign and insignificant statistically. Also, the coefficient of the variable EQUITY shows a negative sign and insignificant statistically; while the coefficient of the variable INTEREST indicates a negative sign and is significant statistically. It shows that a percentage increase increases in the rate of interest reduces banks' performance by -0.003%. Statistically, the F-statistic is interpreted indicates that the overall estimate of the regression have a good fit and is adequate statistically. The R^2 - (R-squared) which measures the overall goodness of fit of the entire regression shows the value as follows 0.776215. The adjusted R^2 value is0.74298. It shows that the independent variables explain the dependent variable to the tune of 74%. The Durbin Watson statistics result with a value of DW (1.690079) indicates that there is no auto correlation among the variables under consideration and the overall regression is significant statistically.

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