

EFFECT OF DIVIDEND POLICY ON FIRM VALUE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The aim of this paper is to examine the effect of dividend policy on firm value of Listed Deposits Money Banks in Nigeria. The study employed ex post facto research design. Ex post facto research design is used to determine the relationship among variables. The twenty five year (1997 to 2021) time series dataset was obtained from the CBN statistical bulletin. The secondary data used were from all the 15 listed deposits money banks in Nigeria. The study used regression techniques for data analysis. The study found that dividend payout ratio has a negative effect on firm value by lowering the equity value of banks' stocks. In addition, the study discovered strong proof that retained earnings had a detrimental major impact on the firms' worth as indicated by the equity over stock price. The study therefore, recommends that to raise the business value, decision-makers at Nigerian Deposit Money Banks could modify their dividend policy in a way that discourages higher dividend payout ratios. Lower payout ratio will impact positively on the firm value of deposit money banks in Nigeria, therefore banks directors should give good attention on retained profits and dividend payout ratio in their dividend policy decision.

Keywords: Dividend Policy, Firm Value, Financial Performance, Deposit Money Banks, Nigeria

1. Introduction

Dividend policy is a tropical and controversial issue among researchers across the globe. Despite years of investigative research from scholars, we have not still reached an undisputable answer to the question of whether or not dividend policy has influence on firms' value. Dividend policy determines the division of earnings between payments to shareholders and reinvestment in the firm. It is made up of a careful decision as regards how a firm distributes profit to their shareholders and it includes fundamental content about the selection of dividend policy, dividend payout ratio and payout channel (Samuel & Inyanda 2010). Therefore, dividend is a

distributed profit from a corporation to its shareholders. When a corporation makes a profit and decides to pay a proportion of the profit as a dividend to her shareholders. The remaining profit after dividend is retained for re-investment. A high dividend payment suggests that the company is reinvesting less money back into its business. Companies with high dividend tend to attract investors who prefer the assurance of a steady stream of income to a high potential for growth in the share price. On the contrary, a company with low dividend payment means that the companies is reinvesting in business growth, so as to have higher future capital gains for investors.

The management of companies is constantly concerned with the question of whether to distribute dividends to shareholders or keep them for future reinvestments, as well as what percentage should be used if dividend payments are made. Shareholders, insiders, and outsiders must all be in alignment, according to the managers of the companies. Miller and Modigliani (1961) developed the dividend relevance hypothesis, which outlines the theoretical underpinnings of how dividend policy affects a firm's performance. They postulated that, under ideal capital market assumptions, dividend policy of a corporation has no bearing on stock price and capital cost, and as a result, it is useless for shareholders' wealth. Miller and Modigliani (1961) formulated a dividend irrelevance theorem based on a clearly stated but condensed set of perfect capital market assumptions. This idea holds that investors give little weight to a company's payout history, making dividends unimportant for determining a company's valuation. The stock price will fall as a result of dividend distribution, canceling out any profit investors would have made.

This is contrary to Litner (1956) theory of the bird in-hand. Bird-in-hand theory contends that a dividend can have an impact on a company's value. This theory asserts that dividend payments and business value are positively. Better a bird in the hand than two in the bush is the basis for this theory's development. According to this idea, investors would rather have one bird in the hand, which is represented by dividend payments from a stock, than two in the bush with a potentially bigger and less certain financial gain. Investors are more eager to place money into stocks that pay dividends than those that pay dividends now but keep the proceeds. The work of Gordon (1962), who also supported this idea, submitted that there is a high degree of uncertainty in capital gains and future dividends, so investors are interested in their returns and propose to receive dividends now.

With these contrary theories, this study seeks to examine the effect of dividend policy on firm value of listed deposit money banks in Nigeria. The paper has been structured as follows: section one, presented the introduction; section two, literature review; Section three, methodology, Section four, discussion of findings and Section five, conclusion and recommendations.

2. Literature Review

Anton (2016) examined the impact of dividend policy on firm value. Using a sample of sixty-three non-financial firms listed on the Bucharest Stock Exchange over the period 2001-2011. He employed a fixed effects model and found that dividend pay-out ratio positively influences firm value. Furthermore, leverage and firm size were found to have a positive effect on firm value. Sutomo and Budiharjo (2019) investigated the effect of dividend Policy and Return on Equity firm value in the 2014-2017. The results of the study show that: 1) Dividend Payout Ratio has

a positive and not significant effect on the value of the company proxy by Price Book Value. 2) Based on the results of the study it can be seen that return on equity has a positive and significant effect on the value of the company proxy by Price Book Value

Abdullahi, Adebayo and Aliyu (2020) investigated dividend policy determinants of deposit money banks listed on the Nigerian Stock Exchange (NSE) for a period of seven years from 2013 to 2019. Ex-post facto research design was adopted while, with a sample of nine deposit money banks. Secondary data were collected from annual reports of the sampled deposit money banks. The results revealed that Firm Size, Profitability, Return on Equity, P/B value ratio, Return on Assets, Firm Risk and Growth all had effect on dividend per share, whereas profitability has a positive significant effect on dividend per share, return on asset and Risk has a negative significant effect on dividend per share. Furthermore firm size, P/B value ratio, and Growth had a negative and insignificant effect on dividend per share, while Return on Equity has a positive and insignificant effect on dividend per share. The study recommended that managers need to focus on measures which could improve the profitability and the financial position of deposit money banks towards maximizing the shareholders' value, and indeed increase dividend payout on sustainable basis. Huu, Pham, Doan, Ta, Nguyen, and Truong, (2021). Understudied the effect of dividend payment on firm's financial performance Vietnam firms. Their study made of financial statements of 450 firms that were listed on the stock market of Vietnam from 2008 to 2019. The analysis results indicated that dividend payment has negative impact to Vietnamese firms measured by accounting based performance but improves market expectation on firms. They also recorded that who offer firms low dividend rate which has a positive impact on accounting-based performance but a negative effect on market expectation.

Impact of Dividend Policy on Firm Value with Special Reference to Financial Crisis was carried out by Hansda, Sinha, and Bandopadhyay, (2020). Their study was based on data of 500 companies listed on the BSE for the period 2001 to 2017. They employed the dynamic panel regression with two-step system Generalized Method of Moments (GMM). The findings show that dividend policy does not affect firm value definitely, that financial crisis impacted the relationship between dividend behaviour and firm value. Conclusively that higher dividend yield in post crisis period may indicate evidences of signaling hypothesis. Terungwa, and Benedicta, (2021) study examines the effect of dividend policy on the value of listed consumer goods companies in Nigeria for the period of 2012 to 2019. A sample of fifteen (15) consumer goods companies listed on the Nigerian Stock Exchange (NSE) were used. They collected their data from audited financial statements of the sampled consumer goods companies and employed a panel data regression technique. The results show that dividend per share has a significant positive relationship with market price per share of consumer goods companies in Nigeria. Dividend payout ratio has insignificant positive relationship with market price per share; retention ratio also has an insignificant relationship with market price per share. They concluded that dividend policy affects the value of listed consumer goods companies in Nigeria. Investors in listed consumer goods companies in Nigeria are risk averse and have need for current income and pay higher premiums on the stocks of companies that pay dividends. They further advised that managers of consumer goods companies increase their dividend payment per share as this will lead to greater firm value in terms of Market price per share. Determinants of firm value of securities for companies that had issued initial public offering was carried out by Mbugua, Oluoch, and Ndambiri, (2018) in Nairobi securities exchange for the period 2006 to 2016. Results of the study

revealed positive and significant relationship between profitability, investment decision, financing decision and firm size on firm value. They recommended that firms should adopt measures to increase their profitability and invest on opportunities which give positive net present value.

Werigbelegha, (2020) studied dividend policy and its impact on market value of deposit money banks' in Nigeria; for the period 1996-2019. The study made use of use equity/stock price of quoted deposit money banks in Nigeria as proxy for market value while dividend payout ratios, retained earnings ratios, dividend yields and earnings per shares represented independent variables to measure dividend policy. Hypotheses were formulated and tested using time series econometric techniques. The study revealed a positive significant impact of dividend payout ratio on the market value of deposit money banks' in Nigeria. Retained earnings ratios had a positive significant impact on the market value of deposit money banks' in Nigeria. Dividend yields had a positive significant impact on the market value of deposit money banks' in Nigeria. The study concluded that dividend policy has a significant impact on the market value of deposit money banks' in Nigeria. Therefore, regulatory authorities should step up regulatory oversight functions to ensure transparency, business ethics and good corporate governance in the banking sub sector as this would help reduce the fears of investors and the practice of declaration of huge paper profits, insider trading, and manipulation of stock prices.

3. Methodology

The study investigated the effect of dividend policy on firm value of deposit money banks in Nigeria for a period of twenty-five years (1997- 2021). The study employed ex post facto research design. Ex post facto research design is used to determine the relationship among variables where the variables involved can be not

manipulated by the researcher. The time series data set was obtained from the CBN statistical bulletin. The study made use of equity over stock price as proxy for firm value of listed deposit money banks in Nigeria while dividend payout ratios, and retained earnings ratio were used to measure dividend policy.

Model Specification

The functional relationship of dividend policy and firm value of deposit money banks in Nigeria is expressed thus: $EQ/P = f(DPR, RE)$

Obtaining the econometric model from the above expression, we have:

$$EQ/SP = a_0 + a_1(DPR) + a_2(RE) + e_t$$

Where: EQ/SP = Equity over stock price

DPR = Dividend payout ratio

RE = Retained earnings

Et = Error term

4. Results and Discussions

The study evaluates the effect of dividend policy on firm value of deposit money banks in Nigeria. Data drawn from the deposit money bank consist of twenty-five years' annual observation (1997-2021). While firm value was proxied with equity to stock price as the dependent variable, the independent variables were dividend payout ratio and retained earnings ratio. The analyses are as below.

Table 1: Descriptive Analysis

	EQ/P	DPR	RE
Mean	26304.35	0.290771	0.800677
Median	26424.65	0.2084	0.791475
Maximum	57990.2	0.836	0.9102
Minimum	5266.4	0.0898	0.725
Std. Dev.	13617.82	0.24544	0.054594
Skewness	0.109442	1.662399	0.53222
Kurtosis	2.529338	4.010709	2.480887
Jarque-Bera	0.269433	12.07582	1.402508
Probability	0.873963	0.002387	0.495963
Sum	631304.5	6.9785	19.21625
Sum Sq. Dev.	4.27E+09	1.385534	0.068552
Observations	24	24	24

Source: Eviews version 10.

According to Table 1 above, the deposit money banks' average equity over stock price (EQ/P) value is 26,304 naira, with minimum and maximum values of 5,266 naira and 57,990 naira, respectively. The outcome also reveals that the sample DMBs' average dividend payout ratio is 0.291 percent, with a range of 0.0898 percent and 0.836 percent between the least and maximum values. The average value of retain earnings was found to be 0.800 naira, with minimum and maximum values of 0.725 and 0.9102 naira, respectively.

Table 2: Summary of the Augmented Dickey Fuller Unit Root Test of the Variables

Variables	ADF test stat	5% level	Remark
EQ/P	-2.732561	-3.622033	Non-Stationary
D(EQP)	-4.830802	-3.644963	Stationary
DPR	-1.505986	-3.612199	Non-Stationary
D(DPR)	-5.417016	-3.622033	Stationary
RE	-1.992746	-3.612199	Non-Stationary
D(RE)	-5.721009	-3.622033	Stationary

Source: Eviews version 10. Output

The outcome of the unit root test reveals that all the variables were initially non-stationary but then became stationary at the first significant difference of 0.05%. Based on these results, the Autoregressive Distribution Lag (ARDL) model, which accepts order 1 variables, will be used to estimate the regression analysis.

Table 3: Regression Analysis using ARDL Model

Dependent Variable: EQP

Method: ARDL

Date: 06/10/23 Time: 20:48

Sample (adjusted): 1998 2020

Included observations: 23 after adjustments

Maximum dependent lags: 1 (Automatic selection)

Model selection method: Akaike info criterion (AIC)

Dynamic regressors (1 lag, automatic): DPR RE

Fixed regressors: C @TREND

Number of models evaluated: 4

Selected Model: ARDL(1, 0, 0)

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed

bandwidth = 3.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
EQP(-1)	0.339200	0.143452	2.364559	0.0295
DPR	-32584.66	14447.38	-2.255402	0.0368
RE	-136379.7	54264.54	-2.513238	0.0217
C	119551.9	46372.35	2.578085	0.0190
@TREND	1480.654	371.2278	3.988532	0.0009
R-squared	0.715852	Mean dependent var	27168.00	
Adjusted R-squared	0.652708	S.D. dependent var	13234.78	
S.E. of regression	7799.454	Akaike info criterion	20.95116	
Sum squared resid	1.09E+09	Schwarz criterion	21.19800	
Log likelihood	-235.9383	Hannan-Quinn criter.	21.01324	
F-statistic	11.33680	Durbin-Watson stat	2.079482	
Prob(F-statistic)	0.000090			

*Note: p-values and any subsequent tests do not account for model selection.

Source: Eviews version 10. Output

The analysis's findings suggest that our model is a good fit, with an R-squared adjusted value of 65%, indicating that the explanatory variables have a strong predictive ability on the dependent variable, meaning that changes in the dependent variable are explained by variations in the explanatory variables. The T-statistics is employed, via interpretation, to ascertain the statistical significance of the variables. With a t-value of -2.255402 and p-value of 0.0368, the dividend payout ratio is negative but significant, suggesting that an increase in the dividend payout ratio will result in a decline in the equity over stock price of Nigerian banks. Additionally, retain earnings has a negative significant impact on equity over stock price (EQ/P), suggesting that 1% change in retain earnings will bring about 2.5% decrease in equity over stock price of banks in Nigeria. The F-statistics which shows the overall significance of the model shows that the independent variable has

a significant effect on the dependent variable. This means that dividend policy has a significant effect on firm value of deposit money banks in Nigeria. The Durbin-Watson statistics shows the absent of serial correlation in the model. The result also shows that the constant and trend is statistically significant having a p-value less than 0.05.

Table 4: ARDL Bounds Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	4.950281	10%	4.19	5.06
K	2	5%	4.87	5.85
		2.5%	5.79	6.59
		1%	6.34	7.52

Since the F-statistic 4.950281 is lower than the critical value of the upper bound of $I(1)$ of 5.85 series at 5% level in table 4 we conclude that there is no long run relationship between the independent variables and the dependent variable.

Table 5: Auto Correlation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.145147	Prob. F(1,17)	0.7079
Obs*R-squared	0.194713	Prob. Chi-Square(1)	0.6590

The results in table 5 shows that there is no serial correlation in the model since the probability value of the F-statistic and the Chi-square of 0.7079 and 0.6590 respectively are greater than 5%.

Table 6: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.832260	Prob. F(4,18)	0.5221
Obs*R-squared	3.589843	Prob. Chi-Square(4)	0.4643
Scaled explained SS	8.071028	Prob. Chi-Square(4)	0.0890

The table above shows that there is no heteroskedasticity in the model this implies that the model is homoskedastic since the Chi-Square prob-value is greater than 5%.

Fig. 1: Cusum Test

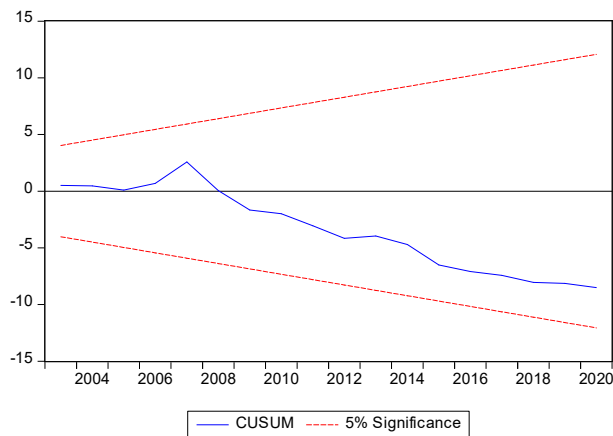
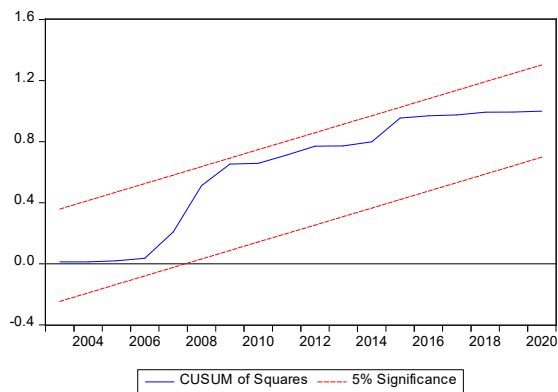


Fig 2: Cusum of Square Test



The Cusum Test and Cusum Sum of Square Test above was used to test for stability, based on the result, the lines for the cumulative sum lies within the 5% critical lines and hence this suggests that the parameters of the model are stable.

5. Conclusion and Recommendations

The dividend policy of a company has the potential to increase firm value. The optimum dividend policy is one that maximizes shareholder value by driving up the company's stock price. Using data for twenty-five (25) years, from 1997 to 2021, of listed DMBs in Nigeria, this study was able to examine the relationship between the dividend policy and firm value. The study findings provide strong evidence that the dividend payout ratio has a negative effect on firm value by lowering the equity value of banks' stocks. In addition, the study discovered strong proof that retained earnings had a detrimental major impact on the firms' worth as indicated by the equity over stock price. We recommend that to raise the business value, decision-makers at Nigerian Deposit Money Banks could modify their dividend policy in a way that discourages higher dividend payout ratios. Lower payout ratio will impact positively on the firm value of deposit money banks in Nigeria; therefore banks directors should give good attention on retained profits and dividend payout ratio in their dividend policy decision.

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Appendix

Optimum lag selection
 VAR Lag Order Selection Criteria
 Endogenous variables: DPR
 Exogenous variables: C
 Date: 06/10/23 Time: 19:42
 Sample: 1997 2021
 Included observations: 21

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-2.828308	NA 24.78311	0.084314 0.025177	0.364601 -	0.414340 -	0.375395 -
1	10.86762	*	*	0.844535*	0.745057*	0.822946*
2	10.90636	0.066421	0.027629	-0.752987	-0.603770	-0.720603
3	10.95972	0.086388	0.030318	-0.662831	-0.463874	-0.619652
4	10.95973	8.64e-06	0.033502	-0.567593	-0.318897	-0.513620

VAR Lag Order Selection Criteria

Endogenous variables: EQP

Exogenous variables: C

Date: 06/10/23 Time: 19:45

Sample: 1997 2021

Included observations: 20

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-214.2135	NA	1.30e+08	21.52135	21.57114	21.53107
		8.378315	90303024	21.15589	21.25546	21.17533
1	-209.5589	*	*	*	*	*
2	-209.4889	0.118935	99264200	21.24889	21.39825	21.27805
3	-208.5925	1.434239	1.01e+08	21.25925	21.45840	21.29813
4	-208.3404	0.378185	1.09e+08	21.33404	21.58297	21.38263

VAR Lag Order Selection Criteria

Endogenous variables: RE

Exogenous variables: C

Date: 06/10/23 Time: 19:46

Sample: 1997 2021

Included observations: 21

Lag	LogL	LR	FPE	AIC	SC	HQ
0	30.72691	NA	0.003452	-2.831134	-2.781395	-2.820339
		17.65676	0.001500	-	-	-
1	40.48459	*	*	3.665199*	3.565721*	3.643610*
2	40.77985	0.506170	0.001606	-3.598081	-3.448864	-3.565697
3	41.25280	0.765724	0.001693	-3.547886	-3.348929	-3.504707
4	41.31008	0.087281	0.001861	-3.458103	-3.209407	-3.404129

Null Hypothesis: EQP has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic - based on SIC, maxlag=1)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.732561	0.2338
Test critical values: 1% level	-4.416345	
5% level	-3.622033	
10% level	-3.248592	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(EQP) has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 1 (Automatic - based on SIC, maxlag=1)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.830802	0.0048
Test critical values: 1% level	-4.467895	
5% level	-3.644963	
10% level	-3.261452	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: DPR has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic - based on SIC, maxlag=1)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.505986	0.7989
Test critical values: 1% level	-4.394309	
5% level	-3.612199	
10% level	-3.243079	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(DPR) has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic - based on SIC, maxlag=1)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.417016	0.0012
Test critical values: 1% level	-4.416345	
5% level	-3.622033	
10% level	-3.248592	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: RE has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic - based on SIC, maxlag=1)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.992746	0.5757
Test critical values: 1% level	-4.394309	
5% level	-3.612199	
10% level	-3.243079	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(RE) has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic - based on SIC, maxlag=1)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.721009	0.0006
Test critical values: 1% level	-4.416345	
5% level	-3.622033	
10% level	-3.248592	

*MacKinnon (1996) one-sided p-values.