



## **Determinants of Dividend Policy in Nigerian Banks**

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### **Author's contribution**

*This work was carried out on sole author. Author NOD designed the study, he performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript and managed the analyses of the study. Finally, the author managed the literature searches and approved the final manuscript.*

### **Article Information**

DOI: 10.9734/ACRI/2018/44463

#### Editor(s):

(1) Dr. Marco Muscettola, Department of Economics, University of Bari, Italy.

#### Reviewers:

(1) Hussin Jose Hejase, Al Maaref University, Lebanon.

(2) Chokri Terzi, University of Sousse, Tunisia.

Complete Peer review History: <http://www.sciencedomain.org/review-history/27179>

**Original Research Article**

**Received 13 September 2018**

**Accepted 03 November 2018**

**Published 14 November 2018**

### **ABSTRACT**

The focus of this study was to provide research-based- evidence on the influence of certain variables on dividend policy using Nigerian banks. Specifically, the study examines the effects of profitability, firm size, leverage and previous levels of dividend payout on dividend policy. Using fifteen banks with data period spanning 2006-2013 and employing the fixed effects regression estimates, our results show the effect of profitability on dividend policy, we found that ROA is positive and significant at 5%. The positive sign as expected suggests that profitable firms will pay dividends. However, the possibility of an inverse relationship as observed for ROE is also likely in two scenarios; (i) In situations where less cash flow is expected in the future a firm pays less and (ii) where the firm has investment opportunities. Firm size (FSIZE) is positive and significant at 5%. Leverage (LEV) appeared negative and also significant in line with a priori expectation. Previous period dividend {DIV (-1)} is positive though not significant at 5%. The study recommends that no doubt companies have corporate incentives to engage in dividend announcements and since the market value responds favourably. However, the study recommends further especially for the benefits of potential investors that given the widespread abuse of Dividends amongst companies it is increasingly becoming difficult to distinguish between "good" and "bad" companies solely by depending on which is paying dividends and hence investors should also border to investigate the company's fundamentals.

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**Keywords:** Dividend policy; profitability; firm size; leverage.

## 1. INTRODUCTION

Corporate financial management especially concerning firms' dividend policy decision is a secure area of concern for both management, and researchers across an eclectic range of stakeholders linked with the firm [1]. The Dividend decision is reflected in the dividend policy of the firm which is one of the most important financial policies used in financial management. Dividend policy is the action programme used by a firm to decide how much of its residual profits will be paid out to shareholders in dividends while dividend , on the other hand, deals with deliberate attempts by management using their dividend policy to communicate to the market and most especially investors about the financial prospects of the company. When a firm engages in dividend signalling, there are quite a number of theoretical expectations that should follow which is a subject of debate.

According to Allen and Michaely [2] dividend policy connotes the payout policy, which managers pursue in deciding the size and pattern of cash distribution to shareholders over time. Selecting a suitable dividend policy is an important decision for the company because flexibility to invest in future projects depends on the number of dividends that they pay to their shareholders. This policy is related to dividing the firm's earning between payment to shareholders and reinvestment in new opportunities. According to [3] dividend policy entails the division of earnings between shareholders and reinvestment in the firm. They are normally paid in cash, and this form of dividend payment is known as a cash dividend. Another option available to a company for the distribution of earnings is by stock dividend (bonus issue) which is supplementary to cash dividend.

Explaining why companies pay a dividend and some do not pay dividends is still problematic to explain and therefore dividend policy remains controversial. Black [4] puts it this way *"the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together"*.

Some researchers like Amidu and Abor [5] believe that setting dividend policy involves judgmental decision making and that there has been emerging concern that there is no single explanation of dividend. Due to increasing

complexities, competition, global and corporate structure, it is difficult to single out one single factor affecting dividend and dividend policy. However, any normative approach to dividend policy intended to be operative under real-world conditions should consider the firms' investment opportunities, any preferences that investors have for dividends as opposed to capital gains and vice versa, and the difference in "cost" between retained earnings and new equity issues.

The key research issue is that there appears not to be a reason to believe that corporate dividend policy is driven by a single goal. Researchers follow different approaches being theoretical and empirical, simple to complex models to study factors that are expected to have effects on dividend policy. However, despite the emergence of several decades of academic research no consistent agreement or consensus has emerged about the actual variables that determine dividend policy. For example, [6] in his study analysed the factors that explain the dividend payout in companies listed on Karachi Stock Exchange using data from 1992-98. Results indicated positive relationships between dividend payout ratios and profitability, cash flow, and tax while the relationship was negative with growth and market to book value. Naeem and Nasr [7] studied the dividend policy of the firms in Pakistan and the results showed companies with higher profit are more likely to pay dividends. Liquidity was found to be insignificant in this study. Mohamed et al. [8] in their study of 200 companies in the Malaysian capital market concluded that profitability and liquidity are significant variables in determining the dividend pay-out. Anil and Kapoor [9] provided evidence using Indian companies and found that profitability does not determine dividend policy. Gill et al. [10] examined the determinants of dividend payout ratios using the data of American service and manufacturing firms. Results indicated that corporate tax and profitability were significant. Okpara and Chigozie [11] examined determinants of dividend payouts in Nigeria and found that the current ratio, profitability and dividends for last year are very important determinants of dividend pay-out. Consequently, this failure to find any consistent agreement in the factors that determine dividend policy is a gap identified that serves as a motivation for this study. The objective of the research is to examine the determinants of

dividend policy in Nigerian banks. Specifically, the study examines the effects of profitability, firm size, leverage and previous level dividend payout on dividend policy.

The remainder of this study is structured as follows: Section 2 presents a literature review. Section 3 presents the data and methodology of the study. Section 4 presents results and discussion of empirical results. Finally, section 5 offers some concluding remarks on the findings.

## **2. LITERATURE REVIEW**

### **2.1 Dividend Policy**

Kumar and Sharma [12] opined that dividend policy deals with the division of earnings between payments to shareholders and retained earnings. Nissim and Ziv [13] also defined dividend policy as the regulations and guidelines that a company uses to decide to make dividend payments to shareholders. Baker and Smit [14] defined dividend policy as the practice that management follows in making dividend payout decisions, which determines the size and pattern of cash distributions over time to shareholders. These distributions may be through dividends and share repurchases. Adefila et al. [15] went further to state that dividend policy is a deliberate policy to maintain or increase dividend at a certain level with the ultimate aim of sustaining the price of the ordinary shares on the stock exchange.

Lee et al. [16] defined dividend policy as the policy used by a company to decide how much it will pay out to shareholders in dividends. He went further to state that dividends are usually distributed in the form of cash (cash dividends) or share (share dividends). For a company to distribute cash dividend, it must have sufficient cash to do so. This, however, creates a cash flow issue. Petersburg [17] also defined dividend policy as a set of principles of the Company governing the optimal distribution of the Company's profit after taxation in order to increase the wealth of the Company's shareholders both through distribution of a part of the net profit in the form of dividends and through increase of the Company's share value resulting from its increased capitalization.

Simply put, a firm's dividend policy refers to its choice of whether to pay out cash to shareholders, in what fashion, and in what amount. The most obvious and important aspect of this policy is the firm's decision whether to pay a cash dividend, how large the cash dividend

should be, and how frequently it should be distributed. In a broader sense, dividend policy also encompasses decisions such as whether to distribute cash to investors via share repurchases or specially designated dividends rather than regular dividends, and whether to rely on stock rather than cash distributions. Non-traditional forms of dividend payments, especially share repurchases are much more commonly used today, and so the dividend decision is much more complex in today's corporate environment.

### **2.2 Determinants of Dividend Policy**

#### **2.2.1 Profitability**

Lintner [18] found that the most important factor influencing dividend decisions is the association between present earnings and the dividend rate. Jensen et al. [19] also asserted a positive link between dividends and current profitability that can be measured by the ratio of operating income to total assets. Fama and French [20] suggested that this enterprise with higher cash flows; additionally, more profitable firms can still pay greater dividends without financing investments with risky debt and equity following the pecking order model. Most authors proved a positive association between profitability and the payment of dividends in different countries such as the United State of America, Argentina or Tunisia. Directors normally recommend of dividend when has made such payments. This result is also supported by the signalling theory of dividend policy.

**H1: There is no significant relationship between profitability and dividend policy.**

#### **2.2.2 Firm size**

Firm size variable has become a key variable in prior literature to explain the firm's decision to pay dividends. Redding [21] and [22] indicated that large firms distribute a higher amount of their net profits as cash dividends, than do small firms. Several studies have tested the impact of firm size on the dividend-agency relationship. They found that firm size as an important explanatory variable, as large companies are more likely to increase their dividend payouts to decrease agency costs. Furthermore, [23] illustrated that dividend payouts can help to indirectly monitor the performance of managers in large firms. That is, in large firms, information asymmetry increases due to ownership dispersion, decreasing the shareholders' ability to monitor

the internal and external activities of the firm, resulting in inefficient control by management. Paying large dividends can be a solution for such a problem because large dividends lead to an increase in the need for external financing, and the need for external financing leads to an increase in the monitoring of large firms, because of the existence of creditors. Other studies related the positive association between dividends and firm size to transaction costs. For example, [24] revealed that larger firms have better access to capital markets and find it easier to raise funds at lower costs, allowing them to pay higher dividends to shareholders. This demonstrates a positive association between dividend payouts and firm size.

**H2: There is no significant relationship between firm size and dividend policy.**

### **2.2.3 Leverage**

Debt level measures the level at which a corporation relies on external funds to finance investments [25]. A correlation between debt is expected from the trade-off pecking order theory. Several authors examined this relationship but until now there are competing ideas [26] supported a positive association because they argued financial leverage tax rates, so it makes the firm willing to pay higher dividends. Belden et al. [27] also found, when they test 524 large American firms in the list of Forbes 500 from 1998 to 2000, that debts are still used in companies applying dividend policy to control agency problems. On the other hand, the view of [19] was different in that they believed financing from equity is more attractive to firms having high dividend ratios than from debt, so low ratios of long-term debt to the book value of total assets often happen in these companies. Bebczuk [28] agreed with the idea of Jensen [19] in that they thought that firms with high leverage seem not to want to reimburse high dividends and get more loans with the purpose of limiting default risk. Neutrally, [25] suggested there is no relation between these two factors because of the statistically insignificant results of hypothesis tests. Naceur et al. [29] total debt to the equity's market value does not affect the dividend yield.

**H3: There is no significant relationship between leverage and dividend policy.**

### **2.2.4 Pattern of past dividends**

Previous year's dividend payment (LDPS) have been regarded as the primary indicator of a firm's

capacity to pay dividends [18], because it is assumed that the management will maintain a stable dividend policy. Furthermore, the information asymmetry hypothesis assumes that dividend policy is "sticky" or shows a tendency to remain at the level of previous dividends [30]. Ahmed and Javi [31] examined the dynamics and determinants of dividend payout policy of 320 non-financial firms. The results consistently support that firms rely on both current earnings per share and past dividend per share to set their dividend payments. However, the dividend tends to be more sensitive to current earnings than prior dividends. Lintner [18] companies avoid changing attempt to of dividend payout. Baker [32-34] showed that managers pay more attention to change in dividend payouts than the level and they tend to smooth the pattern of dividend growth. Baker and Smiht [14] stressed the importance of maintaining dividend continuity. If dividend payout has been maintained at a constant level in the past, the same will be done in the future. Companies tend not to increase dividend payout unless they are confident that they can sustain such an increase.

**H4: There is no significant relationship between past dividend payments and dividend policy.**

## **3. METHODOLOGY**

### **3.1 Data**

As against the cross-sectional or time series design often used, this study will utilise the more robust Panel data design which may be seen as a combination of both cross-sectional and time-series design properties. The population consists of all banks quoted on the Nigeria Stock Exchange as at December 31, 2014. The sample size for this study is 15 banks. The sample of fifteen banks was selected using the simple random sampling technique. In this study, secondary data, by way of annual reports and accounts of the sampled banks in Nigeria and some relevant NSE fact books were used to collect data for eight years (2006 to 2013). The Panel data regression using the generalised least squares technique was used as the data analysis method for the study. The use of panel data regression methodology in this study is based on three fundamental justifications (1) The data collected had time and cross-sectional attributes and this will enable us to study the variables over time (time series) as well as across the sampled quoted companies (cross-

section) (2) Panel data regression provide better results since it increases sample size and reduces the problem of degree of freedom. (3) The use of panel regression would avoid the problem of multicollinearity, aggregation bias and endogeneity problems [35].

### 3.2 Model Specification

Following the literature and theoretical framework of this study, our models focus on evaluating the determinants of dividend policy as indicated by the dividend payout ratio for banks in Nigeria. Specifically the model for the study in line with prior models which examined similar issues; [36] Model, [37] Model [38] Model, and [39] Model. The model adopted for this study is specified below

$$DIVPOUT_{it} = \partial_0 + \partial_1 PROFIT_t + \partial_2 LIQ_{it} + \partial_3 LEV_{it} + \partial_4 FSIZE + \partial_5 GRWT_{it} + \partial_5 DIV(-1)_{it} + \mu_{it} \quad (1)$$

Where;

- DIVPOUT= Dividend payout ratio
- PROFIT= Profitability
- LIQ= Liquidity
- LEV= Leverage
- FSIZE= Firm size
- GRWT= Growth
- DIV (-1) = one period lag of dividend payout

### 3.3 Method

The study employed the panel data method, through the use of three models is Pooled Regression Model (PRM), Fixed Effect Model (FEM) and Random Effect Model (REM). To know any better models to be used in the analysis will be applied two test: The first test (test LM) Lagrange multiplier proposal from Breusch and Pagan in (1980) which is used to choose between (PRM), (FEM) or (REM) and the second test will use [40] to choose between (FEM) and (REM).

#### 3.3.1 The pooled effect model

Writing the equation, starting with equation 2

$$Y_{it} = \alpha_i + \beta k_i + \epsilon_{it} \quad (2)$$

Suppose pooled regression model homogeneity of variances random error between the countries under study limits (  $i = 2 = \sigma \epsilon 2$  ), together with zero covariances between countries  $Cov \epsilon_{it} it, \epsilon_{is} = 0$  for  $i \neq j$ . [66]. The model also assumes forming Fixed limit transactions ( $\alpha_{i,s}$ ) and slope coefficients ( $\beta, s$ ) for all countries.

#### 3.3.2 The fixed effect model

The fixed effects model is simply a linear regression model in which the intercept terms vary over the individual units  $i$ , [41].

**Table 1. Model variable, measurement and Apriori expectation**

Variable	Measurement	Aprori expectation
Dividend payout policy (DIVPOUT)	Dividend Payout ratio is measured as the dividend per equity share divided by earnings per share.	
Profitability (PROFIT)	ROE <sub>it</sub> = Return on Equity for firm i at time t (in years). Used as a proxy for performance and is measured as net profit after tax divided by shareholders equity.	
Leverage(LEV)	Leverage is measured as the ratio of debt to equity.	+
Firm size (FSIZE)	Firm's size is measured by the natural logarithm of the total assets.	+
DIV (-1)	Measured as One period lag of dividend payout.	+
<b>Control variables</b>		
Liquidity (LIQ)	Liquidity is measured as the balance of net cash flow.	
Growth (GRWT)	Change in total assets.	+

Source: Researchers Compilation (2015)

$$Y_{it} = \alpha_1 \bar{\delta}_{1it} + \alpha_2 \bar{\delta}_{2it} + \dots + \beta X_{it} + \varepsilon_{it} \quad (3)$$

Where it is usually assumed that all  $x_{it}$  are independent of all  $\varepsilon_{it}$ , we can write this in the usual regression framework by including a dummy variable for each unit  $i$  in the model [42] That is,

$$y_{it} = \alpha_j d_{ij} + x_{it}\beta + \varepsilon_{it} \quad N \quad j=1 \quad (4)$$

Where  $d_{ij} = 1$  if  $i=j$  and 0 elsewhere. We thus have a set of  $N$  dummy variable in the model. The parameters  $\alpha_1 \dots \dots \dots \alpha_N$  and  $\beta$  can be estimated by ordinary least squares in (3). The implied estimator for  $\beta$  is referred to as the Least Squares Dummy Variable (LSDV) estimator. It may, however, be numerically unattractive to have a regression model with so many regressors.

The Lagrange Multiplier (LM) Test: The Lagrange Multiplier model is as follows [35].

$$LM = \frac{NT}{2(T-1)} \left[ \frac{\sum_{i=1}^N (\sum_{t=1}^T \varepsilon_{it})^2}{\sum_{i=1}^N (\sum_{t=1}^T \varepsilon_{it}^2)} \right] \sim \chi^2 \quad (5)$$

If the value of (p- value) statistical test (LM), is statistically significant for this test, it means that FEM, REM, would be better than PRM. If this value is not statistically significant for the same test, this means that PRM will be better than the FEM, REM.

### 3.3.3 The random effect model

It is commonly assumed in regression analysis that all factors that affect the dependent variable but that have not been included as regressors can be appropriately summarized by a random error term. In our case, this leads to the assumption that the  $\alpha_i$  are random factors, independently and identically distributed over individual distributed over individuals. Thus we write the Random Effects Model as,

$$y_{it} = \mu + x_{it}\beta + \alpha_i + \varepsilon_{it}, \quad \varepsilon_{it} \sim \text{IID } 0, \sigma_\varepsilon^2; \quad \alpha_i \sim \text{IID } 0, \sigma_\alpha^2 \quad (6)$$

where  $\alpha_i + \varepsilon_{it}$  is treated as an error term consisting of two components: an individual specific component, that this not vary over time, and a remainder components, That is assumed to be uncorrelated over time, this is all correlation of the error terms over time is attributed to the individual effects  $\alpha_i$ . It is assumed that  $\alpha_i$  and  $\varepsilon_{it}$  are mutually independent and independent of  $x_{it}$

(for all  $j$  and  $s$ ). This implies that the OLS estimator for  $\mu$  and  $\beta$  from (5) is unbiased and consistent. The error components structure implies that the composite error term  $\alpha_i + \varepsilon_{it}$  exhibits a particular form of autocorrelation (unless  $\sigma_\alpha^2 = 0$ ) [43]

### 3.3.4 The Hausman test

[40] is used to decide between Fixed Effect model and Random Effects model. The null hypothesis is that the preferred model is the Random Effects Model vs. the alternative is the Fixed Effects model. It basically tests whether the unique errors ( $u_i$ ) are correlated with the regressors; the null hypothesis is they are not [44].

## 4. RESULTS AND DISCUSSION

Table 2 shows the descriptive statistics for the variables. As observed, DIV shows the following statistics; Mean= 0.3774, STD= 0.9819 which indicates the extent to which discretionary accruals for the distribution exhibits considerable clustering around the average, Max= 1.14 and Min= 0. This is quite close to [45] which found average dividend ratio for the sample to be 0.43148 with Max= 0.995 and min =0 using fifty listed firms operating in high profile industries. Using a more robust sample of over 63 quoted firms quoted from 1984 to 1997 and categorizing on the basis of gearing ratios [46] found slightly different average dividend pay-out ratios of 0.076, 0.079 and 0.819 for moderately geared, low geared and highly geared companies respectively. FISIZE show the following statistics; Mean = 2.67E+08, STD=3.33E+08, Max= 1.33E+09 and Min= 0. For GRWTH, Mean= 0.1929, STD= 0.5775, Max= 1.16 and Min= -3.9. Agyemang [47] found the following growth statistics [mean=1.146305 min= -.3260779 and max= 9.893576] for Ghanaian banks. LEV show the following statistics; Mean= 0.7606, STD= 0.5775, Max= 1.16 and Min= -0.31. For LIQ, Mean= 18880086, STD = 4321860, Max = 1.53E+08 and Min= 0.5. ROA shows the following statistics; Mean= 0.047, STD= 0.177, Max= 0.95 and Min= -0.5 and this not significantly different from [47] finding [mean = 0.3442, Min= 0.00717 and Max =0.0922] for all eleven financial institutions in Ghana from 2005-2007. For ROE, Mean= 0.4862, STD = 32.9290, Max =2.07 and Min = -4.8. Uwuigbe [45] found average ROE to be 0.3357, max = 0.955 and min = -.379. DIV (-1) show the following statistics; Mean= 0.44, STD= 1.0448, Max= 6.14 and Min= 0.

Table 3 shows that the correlation coefficients of the variables are examined. However of particular interest to the study are the correlation between; dividend policy and the explanatory variables. As observed, DIV is positively correlated with Firm size ( $r=0.106$ ) and this in tandem with [37] using Nigerian firms quoted on the stock exchange and found a positive strong correlation coefficient ( $r=0.7709$ ) and also with [48] ( $r=0.1058$ ). It is also similar to the coefficient ( $r=0.007$ ) found by Arif and Akbar [49] using 174 non-financial firms listed on Karachi Stock Exchange and that ( $r=0.0779$ ) found by [39] using Non-Financial Firms listed in the KSE100 Index. It is however at variance with [36] who found a negative coefficient ( $r=-0.021$ ) using firms quoted on the Saudi stock exchange. DIV is also positively correlated with GRTH ( $r= 0.0188$ ). The coefficient is low but is nevertheless consistent with other empirical studies [50,48,47] that found a positive correlation coefficient. However, using Non-Financial Firms listed in the KSE100 Index, [39] found a negative correlation ( $r=-0.00316$ ) between dividend policy and growth.

LEV is also positively correlated with ( $r=0.07015$ ) and this is in tandem with [51] who found a

correlation coefficient of 0.245 using Nigerian banks. The finding is however at variance with that of [36] who found a correlation coefficient of -0.44. DIV is also positively correlated with LIQ ( $r=0.01974$ ) and is consistent with [5] but is different from what was found ( $r=-0.18$ ) by [36] using firms quoted on the Saudi stock exchange. Previous period dividend [DIV (-1)] also appears to be positively correlated with Dividend policy ( $r= 0.178$ ) which is in tandem with 0.561 found by [36]. DIV is also positively correlated with ROA ( $r=0.056$ ), and this is in tandem with [37] which found a positive correlation coefficient ( $r=0.3776$ ). DIV is negatively correlated with ROE ( $r=-0.0417$ ) though contrary to [45] who found a positive correlation coefficient ( $r=0.441$ ). The Inter-correlations between the explanatory variables do not seem to indicate the presence of multicollinearity threats for most of the variables. For example, we find that FSIZE is negatively correlated with LIQ( $r=-0.059$ ) and BSR( $r=-0.133$ ). LEV is positively correlated with DIV (-1) ( $r=0.0729$ ). GRWTH is positively correlated with LIQ ( $r=0.0029$ ) and ROA ( $r=0.074$ ). FSIZE is positively correlated with ROA( $r=0.126$ ) and ROE ( $r=0.081$ ). Nevertheless, the variance inflation test is performed to provide robust evidence of the collinear status of the variables.

**Table 2. Descriptive statistics**

	DIV	FSIZE	GRWTH	LEV	LIQ	ROA	ROE	DIV(-1)
Mean	0.3774	2.67E+08	0.1929	0.7606	18880086	0.04797	3.486253	0.448276
Median	0	1.46E+08	0.24	0.82	5127401	0.02	0.12	0
Maximum	6.14	1.33E+09	1.16	1.3	1.53E+08	0.95	13.07	6.14
Minimum	0	1.043465	-3.9	-0.31	0.5	-0.5	-4.8	0
Std. Dev.	0.9819	3.33E+08	0.577547	0.25870	4321860	0.17737	32.9290	1.04482
Skewness	3.936	1.29093	-4.2939	-1.9302	2.769312	2.396128	9.156659	3.40225
Kurtosis	20.525	4.010961	30.594	7.4736	8.792476	18.21656	84.90211	15.92218
Jarque-Bera	1338.028	27.8691	3027.56	126.57	232.8306	922.5969	25532.08	773.1541
Prob	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Researchers Compilation (2015)

Where: LIQ= Liquidity; GRWTH = Firm Growth; LEV= Leverage; ROA= Return on Assets; ROE= Return on equity; FSIZE= Firm size; DIV= Dividend; DIV (-1) = Previous period dividend

**Table 3. Pearson correlation result**

	DIV	FSIZE	GRWTH	LEV	LIQ	ROA	ROE	DIV(-1)
DIV	1							
FSIZE	0.106235	1						
GRTH	0.0188	0.03279	1					
LEV	0.07015	0.08770	-0.0250	1				
LIQ	0.01974	-0.0593	0.00297	-0.03277	1			
ROA	0.05639	0.12612	0.07402	0.031303	-0.00215	1		
ROE	-0.04172	0.08182	-0.2669	-0.01082	0.333804	-0.0314	1	
DIV(-1)	0.17802	0.15769	0.06277	0.133036	-0.13844	0.19491	-0.0475	1

Source: Researchers Compilation (2015)

Table 4 shows the regression results for the study. As observed, the estimation is conducted using the fixed effects (FE), random effects (RE) and Pooled OLS estimation techniques. The FE estimation shows a coefficient of determination value of 0.581 which indicates that the model explains about 58.1% of the systematic variations dividend policy with an adjusted value of 0.446. The F-stat is 4.292 (p-value = 0.00) which is significant at 5% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The Durbin-Watson (D-W) statistics of 1.9 also substantiates this. Commenting on the performance of the structural coefficients, we observe that LIQ is positive (5.50) though not

significant at 5% ( $p=0.994$ ). GRWTH is negative (-0.003) and not significant at 5% ( $p=0.772$ ). However, LEV appeared negative (0.0231) and also significant at 5% ( $p=0.003$ ). In addition, ROA is positive (0.0611) and significant at 5% ( $p=0.003$ ). ROE is negative (-0.001) and significant ( $p=0.016$ ) at 5%. FSIZE is positive ( $4.95E-10$ ) and significant at 5% ( $p=0.000$ ) while DIV (-1) is negative (-0.0140) though not significant at 5% ( $p=0.8612$ ).

The RE estimation shows a coefficient of determination value of 0.046 with an adjusted value of 0.038. The F-stat is 0.542 (p-value = 0.799) which is significant not at 5% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be accepted.

**Table 4. Regression result**

Dependent variable	FE	RE	POLS
C	0.2706 {0.036} (0.000)	0.0979 {0.2117} (0.6448)	0.0392 {0.059} (0.5083)
LIQ	5.50 {7.42} (0.994)	1.62 {2.50} (0.5189)	2.63 {6.17} (0.6714)
GRWTH	-0.0033 {0.0116} (0.7723)	-0.0208 {0.080} (0.7970)	-0.0296 {0.0362} (0.4151)
LEV	-0.0231* {0.007} (0.003)	0.1585 {0.1552} (0.3103)	0.00049 {0.0527} (0.992)
ROA	0.0611* {0.007} (0.003)	0.0623 {0.5630} (0.9122)	-0.0121 {0.0928} (0.896)
ROE	-0.0010* {0.001} (0.0161)	-0.002* {0.0008} (0.0197)	-0.0008 {0.0004} (0.027)
FIRM SIZE	$4.95E-10^*$ { $1.32E-11$ } (0.000)	$2.52E-10$ { $1.59E-10$ } (0.117)	$2.81E-10$ { $1.12E-10$ } (0.0137)
DIV(-1)	-0.0140 {0.0799} (0.8612)	0.154* {0.073} (0.038)	0.1715 {0.0532} (0.002)
R <sup>2</sup>	0.581	0.046	0.112
ADJ R <sup>2</sup>	0.446	0.038	0.034
F-Stat	4.292	0.542	1.427
P(f-stat)	0.00	0.799	0.206
D.W	2.16	2.21	2.12
Hausman test: 0.041			
Heteroskedasticity test	0.14263	0.2345	0.7235

Source: Researchers Compilation (2014), {} are standard errors, () are p-values  
N.b: FE = Fixed effects, R=Random effects and POLS= Pooled Ordinary least squares



The D. W statistics of 2.21 indicates the presence of serial correlation is unlikely. Commenting on the performance of the structural coefficients, we observe that LIQ is positive (1.62) but not significant at 5% ( $p=0.797$ ). GRWTH is negative (-0.0208) and not significant at 5% ( $p=0.772$ ). However, LEV appeared positive (0.1585) though not significant at 5% ( $p=0.3103$ ). In addition, we observe that we observe that ROE is negative (-0.002) and significant at 5% ( $p=0.0197$ ) while ROA is positive (0.0623) though not significant at 5% ( $p=0.9122$ ).FSIZE is positive (2.52) though not significant at 5% ( $p=0.117$ ) while DIV (-1) is positive (0.154) and significant at 5% ( $p=0.038$ ). The POLS estimation shows a coefficient of determination value of 0.112 with an adjusted value of 0.034. The F-stat is 1.427 ( $p$ -value = 0.206) which is significant not at 5% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be accepted. The D. W statistics of 2.12 indicates the presence of serial correlation is unlikely. Commenting on the performance of the structural coefficients, we observe that LIQ is positive (2.63E-10) but not significant at 5% ( $p=0.6714$ ). GRWTH is negative (-0.0296) and not significant at 5% ( $p=0.415$ ). However, LEV appeared positive (0.0005) though not significant at 5% ( $p=0.992$ ). In addition, we observe that we observe that ROE is negative (-0.008) and significant at 5% ( $p=0.027$ ) while ROA is also negative (-0.0121) though not significant at 5% ( $p=0.898$ ).FSIZE is positive (2.81E-10) and significant at 5% ( $p=0.0137$ ) while DIV (-1) is positive (0.154) and also significant at 5% ( $p=0.002$ ). Finally, the model's autocorrelation was done by using the heteroskedasticity test.

Based on the Hausman test, the fixed effects estimations will be used for the discussion of results and the test of the hypothesis. The effect of profitability on dividend policy, we found that ROA is positive (0.0611) and significant at 5% ( $p=0.003$ ), ROE is negative (-0.001) and significant ( $p=0.016$ ) at 5%. Though the direction of the sign of the coefficients differs for ROE and ROA, statistical significance is nevertheless observed for the variables. The positive sign as expected suggests that profitable firms will pay dividends and this is in tandem with [52,63] and [31]. Hence, we reject the null hypothesis (H1) that there is no significant relationship between profitability and dividend policy. The finding is also similar to that of [64] who found that dividends paying firms are more profitable and

[5] that agreed that dividend payout policy decision is influenced by profitability. The possibility of an inverse relationship as observed for ROE is also likely due to two scenarios; (i) In situations where less cash flow is expected in the future a firm less and (ii) where the firm has investment opportunities. This is in tandem with [52] and [65].

FSIZE is positive (4.95) and statistically significant at 5% ( $p=0.000$ ) in line with a priori expectation, the relationship between firm's size and dividends is positive and hence we reject the null hypothesis (H2) that there is no significant relationship between firm size and dividend policy. The positive relationship between dividend payout policy and firm size is also supported by a growing number of other studies [54,19,21,24,53,55,56,57,58,52]. Similarly, [52] using firms listed on Gulf Co-operation Council (GCC) country stock exchanges found that where firm size is high companies make dividend payments.

The FE estimation shows that LEV was negative (-0.0231) and also statistically significant at 5% ( $p=0.003$ ). In line with a priori expectation, the relationship between leverage and dividends is negative and significant and hence we reject the null hypothesis (H3) that there is no significant relationship between leverage and dividend policy. A mounting number of studies have found that the level of financial leverage negatively affects dividend policy [59,60,61,62]. Their studies argued that highly levered firms instead of sharing existing cash to shareholders and protect their creditors they rather look ahead to maintaining their internal cash flow to fulfil duties of future financial obligations. In contrast to our finding, [26] supported a positive association, [27] also found, when they test 524 large American firms in the list of Forbes 500 from 1998 to 2000, that debts exist for companies applying dividend policy to control agency problems. Neutrally, [25] suggested there is no relation between these two factors while [29] results showed that the total debt to the equity's market value does not affect the dividend payments.

As shown in Table 4, previous period dividend {DIV (-1)} is positive (0.0140) though not significant at 5% ( $p=0.8612$ ) and hence we accept the null hypothesis (H4) that there is a positive and statistically significant relationship between previous period dividend and dividend policy. Previous year's dividend payment (LDPS)

have been regarded as the primary indicator of a firm's capacity to pay dividends [18] because it is assumed that the management will maintain a stable dividend policy. The finding, however, is in tandem with [56,28] but in contrast with [31] and [67] which found dividends payments in previous periods affects firms' current period dividend policy.

## **5. SUMMARY, CONCLUSION AND RECOMMENDATION**

As stated earlier, the Dividend decision is reflected in the dividend policy of the firm which is one of the most important financial policies used in financial management. Dividend policy is the action programme used by a firm to decide how much of its residual profits will be paid out to shareholders in dividends while dividend, on the other hand, deals with deliberate attempts by management using their dividend policy to communicate to the Explaining why companies pay dividend and some do not pay dividends is still problematic to explain and therefore dividend policy remains controversial. The focus of this study was thus to provide research-based-evidence on the influence of certain variables on dividend policy using Nigerian banks. Using fifteen banks for 2006-2013 and employing the fixed effects regression estimates, our results show the effect of profitability on dividend policy, and we found that ROA is positive and significant at 5%. The positive sign as expected suggests that profitable firms will pay dividends. However, the possibility of an inverse relationship as observed for ROE is also likely in two scenarios; (i) In situations where less cash flow is expected in the future a firm less and (ii) where the firm has investment opportunities. This is in tandem with [52] and [65]. FSIZE is positive and significant at 5%. LEV appeared negative and also significant in line with a priori expectation. Previous period dividend {DIV (-1)} is positive though not significant at 5%. The study recommends that no doubt companies have corporate incentives to engage in dividend announcements and since the market value responds favourably, companies should engage in dividends payments and adopt a dividend payout policy that is investor friendly. However, the study recommends further especially for the benefits of potential investors that given the widespread abuse of Dividends amongst companies it is increasingly becoming difficult to distinguish between "good" and "bad" companies solely by depending on which is paying dividends and hence investors should

also border to investigate the company's fundamentals.

## **COMPETING INTERESTS**

Author has declared that no competing interests exist.

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*The peer review history for this paper can be accessed here:*  
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