

# Does Dividend Policy Affect Firm Earnings? Empirical Evidence from Nigeria

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## Abstract

This study examines the effect of dividend policy on firm's returns using data of seventeen (17) manufacturing firms listed on the Nigerian stock Exchange. Employing descriptive statistics, correlation analysis and panel regression technique, where the fixed effect regression was adopted, the findings reveal that current dividend payout, growth opportunity of firms and dividend per share have positive and significant effect on earnings per share, with that of growth having an overwhelming influence. Current dividend payout and dividend per share are both significant at the 5percent level. One lagged dividend payout (previous dividend payout), cash flow and leverage have positive but not significant influence on EPS, while the impact of size is negative and not significant. The study recommends the implementation of effective and result-oriented dividend policies by financial managers of firms as well as sound investment, effective regulatory and supervisory framework by capital market regulators in order to enhance firms' earnings and performance in Nigeria.

**Keywords:** dividend policy, earnings per share, shareholders wealth, agency theory

## 1. Introduction

Corporate dividend policy has remained a very important but also an ambiguous issue in financial literature. A number of researchers have tried to determine the effect of corporate dividend policy on the value of the firm but results are conflicting. The influence of dividend policy on the value of a firm became important after the celebrated work by Modigliani and Miller (1958) and Miller and Modigliani (1961). They presented the view that a firm's value is not related to its dividend policy unlike the earning power; That shareholders are not interested in receiving cash flows as dividends or capital gains, in a perfect market. This view is only true under the condition that investors and managers hold the same information about the financial position of the firm. Nonetheless, there are some investors which prefer present cash streams rather than expected future cash flows in the form of capital gain.

Abstracting from the perspective of agency theory presented by Jensen and Meckling (1976), managers could be incapable of maximizing shareholders' wealth because of the non-additive nature of utility functions and goals heterogeneity. The basic problem arises because of the separation of control and ownership which in turn results in agency conflicts. Management may use retained earnings to finance low NPV investment projects motivated by their own interests. Therefore, maximum portion of the firm's earnings should be paid as dividends rather than keeping it as retained earnings. In this way, there will be less money in the hands of managers and thus decrease the magnitude of discretionary funds. A further explanation of agency theory was presented by Easterbrook (1984, cited in Nazir, Abdullah and Nawaz, 2012). The argument is that payment of large portion of earnings can solve the issue of combined actions that tends to lead to under-monitoring of managers. Thus, distribution of dividends to shareholders and subsequent issue of debt encourage examination of the firm by third parties such as investment banks and regulatory organizations. This screening lowers the agency costs and causes the firm's market value to rise. Jensen (1986) argued that if large portion of earning is paid as dividend, firm's value would be increased because there would be less free cash flow in the hands of managers. It will decrease the funds available to invest in projects of negative NPV (Nazir, Abdullah & Nawaz, 2011).

Determining appropriate level of dividend to be paid and deciding whether or not to offer non-cash alternatives, (such as scrip dividend) have been difficult decisions for all firms. In particular, dividend policy serves as a mechanism for control of managerial opportunism. Dividend policy is considered to be the most important financial

decisions that corporate managers encounter (Baker and Powell, 1999). The main responsibility of financial managers is to maximize shareholders wealth and it is very important for financial managers to have good understanding of dividends and dividend policy because any right or wrong dividend decision can affect the performance of a firm. Dividend policy signals a firm's progress because dividend itself signals towards firm stability and the long term attention of business. Dividend policy decisions affect firm earnings, and in particular a change in dividend impinges on firm's earnings. It is against this backdrop that a study as this is imperative, particularly given the few empirical works on the role of dividend policy on the value of quoted firms in the context of emerging economies like Nigeria. This study is thus different from the previous ones as it is conducted with firms in the manufacturing sector in Nigeria. The period 2009 to 2013 was selected because the Nigerian capital market has undergone significant changes during the period.

## 2. Literature Review

### 2.1 Theories of Dividend Policy

A number of theories have tried to explain dividend policies. Below are some of the theories of dividend policy:

**Dividend-Irrelevance Theory in a World without Taxes:** Miller and Modigliani (1961) similar to their work on capital structure irrelevance proposition also theorized that, with perfect markets, no taxes or transaction costs, bankruptcy costs, and homogenous expectations, dividend policy is irrelevant to firm's capital structure. The reason is that investors duplicate the dividend policy of the firm (homemade dividend) because firm and investors have identical opportunities. For example, suppose, from an investor's perspective, a company's dividend is too large. That investor could then buy more stock with the dividend that is over the investor's expectations. Likewise, if, from an investor's perspective, a company's dividend is too small, an investor could sell some of the company's stock to replicate the cash flow he or she expects. Dividends are irrelevant to investors since they can create homemade dividends.

**Bird-in-hand theory:** This theory was developed by Myron Gordon and John Lintner as a counter point to Modigliani and Millers dividend irrelevance theory. The bird in hand theory proposes that a relationship exist between firms value and dividend payout. It states that dividends are less risky than capital gains since they are more certain. Investors would therefore prefer dividends to capital gains (Amidu, 2007). Firms should therefore set a high dividend payout ratio and offer a high dividend yield to maximize stock prices (Murekefu and Ouma, 2012). The bird-in-the-hand theory states that dividends are relevant. Remember that total return ( $k$ ) is equal to dividend yield plus capital gains. Gordon and Lintner took this view and assumed that  $k$  would decrease as a company's payout increases. As such, as a company increases its payout ratio, investors become concerned that the company's future capital gains will dissipate since the retained earnings that the company reinvests into the business will be less. Gordon and Lintner argued that investors value dividends more than capital gains when making decisions related to stock.

Dividend payout decision cannot change the present value of cash payment to shareholders, but it can affect the temporal pattern of payments. If investors view future dividend payments riskier than current payments, they will prefer a bird at hand than two in the bush. Indeed, paying out some cash today reduces the risk of future payoff uncertainty. The "Bird in Hand" theory of Gordon (1961, 1962) argues that outside shareholders prefer a high dividend policy. They prefer a dividend today to a highly uncertain capital gain from a questionable future investment. A number of studies demonstrate that this model fails if it is posited in a complete and perfect market with investors who behave according to notions of rational behaviour (Miller and Modigliani, 1961). The bird-in-the-hand theory, hypothesized independently by Gordon (1963) and by Lintner (1962) states that dividends are relevant to determining of the value of the firm. In a popular common stock valuation model developed by Gordon, the determinants of the value of a firm's cost of equity financing are the dividends the firm is expected to pay to perpetuity, the expected annual growth rate of dividends and the firm's current stock price.

**Agency cost and the free cash flow theory:** Agency cost is the cost of the conflict of interest that exists between shareholders and management (Ross et al, 2008). This arises when management act on their behalf rather than on behalf of shareholders who own the firm. This is however at variance with the assumptions of Modigliani and Miller (1961), who assumed that managers are perfect agents for shareholders and no conflict of interest exist between them. Al- Malkawi (2007), argued that managers are bound to conduct some activities which could be costly to shareholders such as undertaking unprofitable investments that yield excessive returns to them, and unnecessarily high management compensation. These costs are ultimately borne by shareholders, therefore shareholders of firms with excess free cash flow would require high dividend payment instead (Hussainey, Magbame & Chijioke-Magbame, 2010). Agency cost may also arise between shareholders and bondholders, while shareholders

require more dividends, bondholders demand less dividends by putting in place debt covenant to ensure availability of cash for their debt repayment. Easterbrook (1984, cited in Hussainey, Magbame & Chijioko-Magbame, 2010) also identified two agency cost; the cost of monitoring of managers and the cost of risk aversion on the part of managers.

**Signaling Theory:** The Signaling theory propounded by Merton Miller and Kevin Rock in 1985, proposes that dividend policy can be used as a device to communicate information about a firm's future prospects to investors. Cash dividend announcements convey valuable information, which shareholders do not have about management's assessment of a firm's future profitability. Thus, such announcements reduce information asymmetry. Investors may therefore use this information in assessing a firm's share price. Dividend policy under the model is therefore relevant (Al-Kuwari, 2009). Signaling theory was analyzed in the early 1980s. It revealed that information between managers and shareholders outside allow managers to use dividend as a tool to signal private information about a firm's performance to outsiders (Aharony & Swang, 1980; Kalay & Loewenstein 1985; Healy & Pelepu; 1988). According to the information content of dividends or signaling theory, firms, despite the distortion of investment decisions to capital gains, may pay dividends to signal their future prospects (Amidu, 2007). The intuition underlying this argument is based on the information asymmetry between managers (insiders) and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders.

**Tax-Preference Theory:** The models considered so far assume a world with only corporate taxes. What happens if personal taxes are introduced? Taxes are important considerations for investors. Remember capital gains are taxed at a lower rate than dividends. As such, investors may prefer capital gains to dividends. This is known as the "tax preference theory". Additionally, capital gains are not paid until an investment is actually sold. Investors can control when capital gains are realized, but, they cannot control dividend payments, over which the related company has control. Farrar and Selwyn (1967) tried to explain this theory, and their position was extended into a market equilibrium framework by Brennan (1970). Farrar and Selwyn used partial equilibrium analysis, assuming that individuals attempt to maximize their after-tax income. Shareholders have two choices: either to own shares in an all equity firms and use homemade leverage or buy shares in a levered firm. The first choice is between corporate and homemade leverage, while the second choice is between the firm paying dividends or retaining the earnings so that shareholders can take their income as capital gains.

**The Clientele Effect Theory:** The clientele effect also provides an alternative argument for the irrelevance of dividend policy, in the context of valuation. In line with the submissions of this theory, if investors migrate to firms that pay dividends that most closely match their needs, no firm's value should be affected by its dividend policy. Thus, a firm that does not pay or pays low dividends should not be penalized for doing so, conversely, a firm that pays high dividends should not have a lower value, since its investors like dividends. This argument assumes that there are enough investors in each dividend clientele to allow firms to be fairly valued, no matter what their dividend policy is (Amidu, 2007).

## *2.2 Empirical Evidence*

A number of studies have examined the impact of dividend policy on firm's earning. A review of some of the available studies are provided here.

Nisim and Ziv (2001) investigated the relationship between dividend changes and future earnings changes. They examined the correlation between the rate of change in dividend per share in year zero and the change in earnings in year zero, one and two. This was based on the assumption that earnings follow a random walk. They found that dividend increases and decreases are not symmetric. Dividend increases are associated with future profitability for at least two years after the dividend change whereas dividend decreases are not related to future profitability after controlling for current and expected profitability. They proposed that this lack of association can be explained by accounting conservation. They therefore concluded that there is a positive relationship between dividend payout and future earnings, with the relationship stronger for future abnormal earnings. Zhou and Ruland (2006) used a multiple regression model to establish the relationship between dividend payout and future earnings growth. The key independent variable for their study was dividend payout. Size was controlled because small firms are likely to exhibit stronger growth than larger companies which are more established and mature. Return on assets was also controlled for since it is difficult to demonstrate strong earnings growth when the profitability is already high. Leverage was controlled on the expectation that firms with high leverage would tend to have large investments and thus higher earnings growth. Earnings yield, past earnings growth and future asset growth were also controlled for. They revealed that high dividend payout firms tend to experience strong future earnings but relatively low past earnings growth despite market observers having a contradicting view.

Barron (2002) investigated the impact of dividend policy on firms earning in Canada. The empirical findings reveal that healthy dividend payout is an indication that companies are generating real earnings rather than cooking books. Arnett and Asness (2003) research shows that future earnings growth is associated with high dividend payout. They concluded that historical evidence strongly suggests that expected future earnings growth is fastest when current payout ratios are high. Their evidence contradicted the view that reinvestment of retained earnings fuel future earnings faster. They suggest that the positive relationship between current dividend payout and future earnings growth is based on the free cash flow theory. Based on the assumption that poor investments lays the foundation for poor earnings growth in the future, while minimization of conflict will enhance earnings growth through carefully chosen project, paying dividends to reduce the free cash flow enhances the performance of a company since the managers will have less cash flows for suboptimal investments. This is also consistent with the agency cost theory. Another explanation provided by them for the positive relationship between dividend payout and growth in future earnings is that managers are reluctant to cut dividends. The positive relationship is also driven by sticky dividends combined with mean reversion in more volatile earnings.

Farsio, Geary and Maser (2004) argue that no significant relationship between dividends and earning hold in the long run and studies that support this relationship are based on short periods and therefore misleading. Lie (2005) argue that firms that increase payout have excess financial flexibility and exhibit positive income shocks but there is limited evidence of subsequent performance improvements. In a study that examines whether divined policy influences firm performance in the Ghana stock exchange, Amidu (2007) used a panel regression equation to meet his objectives. The panel pooled cross-section regression was used to gain the maximum possible observations. The dependent variables were return on assets and return on equity as the main accounting measures of performance and dividend payout was measured by dividend payout ratio. In his model he controlled size, return on asset, earnings yield, leverage and future asset growth. His findings were that dividend policy affects firm performance especially profitability proxied by the return on assets. The results showed a positive and significant relationship between return on assets, return on equity, growth in sales and dividend policy. This shows that when a firm has a policy to pay dividends, its profitability is influenced. A study by Howatt, Zuber & Gander (2009) also concluded that positive changes in dividends are associated with positive future changes in mean real earnings per share.

Khan et al (2011) also investigated the effect of dividend policy on share earnings of 55 non-financial firms listed on Karachi Stock Exchange. Results of their study after using regression on panel data identified a positive link between dividend yield and share price movements.

Murekefu and Ouma (2012) used correlation and regression analysis to determine the relationship between dividend payout and firm performance (net profit after tax) in Nigeria. The findings showed a positive relationship between net profit after tax and total asset. Dividend is a significant factor that affects firm's performance as indicated by the regression equation. Adediran and Alade (2013), in a study of dividend policy and corporate performance in Nigeria gathered data of 25 listed companies from the Nigerian Stock Exchange Fact Book, and Annual Reports and Account. The data are analyzed using panel data multiple regression. Their findings reveal that there is a positive significant relationship between dividend policies, corporate profitability, investments and earnings per share of organizations. They then recommended that organizations should ensure that they have a robust dividend policy in place that will enhance profitability.

### 3. Methodology

#### 3.1 Population and Sample

The group to which this study intends to generalize its findings is all the manufacturing firms in the Nigerian Stock Market since the study borders on establishing the relationships between dividend payout and manufacturing firm performance in Nigerian. Consequently, the population of the study consists of the entire 120 manufacturing firms listed on the Nigerian Stock Exchange. The sample for this study consists of seventeen (17) manufacturing firms selected from the Nigerian Stock Exchange. The period for the study is five (5) years covering 2009 to 2013. Three sub-sectors were selected from manufacturing sector: Industrial goods segment, Consumer goods segment (food and beverages), and the Oil and gas segment. Companies were selected randomly from each of the specified segments. The sample size of 17 is calculated using the Yamani formula below:

$$n = \frac{N}{1 + N(e)^2}$$

Where:  $n$  = sample size  
 $N$  = population  
 $e$  = level of significance (which is indicated as 5 percent)

Given that  $N = 120$

$$\text{Then, } n = \frac{120}{1+120(0.05)^2} = 16.9$$

Therefore,  $n$  is approximately 17.

The selection of the seventeen firms is done with the selection criteria listed above. The allocated to each subsector is according to the ratio of number of firms in each group to the total. The data employed are annual data. Annual Reports of the various firms for the period were also additional sources.

### 3.2 The Estimation Techniques

Two broad techniques employed in the data analysis were the statistical and econometric techniques. The statistical tools employed are descriptive statistics and correlation analysis. Descriptive statistics are used because they provide simple summaries about the samples and their measures and thus generate the initial characterization of the data set. Moreover, correlation analysis is used in the study to investigate the preliminary interactions and relationships among the variables. Finally, the panel data regression technique is employed to examine the influence of dividend policy variables on earnings per share (EPS).

### 3.3 Model Specification

The model specified in this study demonstrates that firm earnings per share responds effectively to dividend policy adopted by a particular firm. This is based on the dividend relevance school of thought. Earnings per Share (EPS) are taken as the dependent variable. The explanatory variables include dividend policy and the current dividend payout ratio (DIV). Other control variables are included in the model in order to ensure robustness in the estimates. These include cash flow (CF), growth opportunity (G), the firms leverage (LEV) which is measured as the ratio of total debt divided by the book value of Assets and size of the firm (SIZE). The functional form of this model is captured as:

$$\text{EPS} = f(\text{DIV}_{it}, \text{DIV}_{it-1}, \text{DPS}_{it}, \text{CF}_{it}, \text{G}_{it}, \text{SIZE}_{it}, \text{LEV}_{it}) \quad (1)$$

Where; EPS = earnings per share;

$\text{DIV}_i$  = current dividend payout by firm  $i$

$\text{DIV}_{it-1}$  = one period lagged dividend payout by firm  $i$  (dividend of preceding year);

$\text{DPS}_{(t-1)}$  = dividend per share of firm  $i$ ;

$\text{CF}_{it}$  = Cash flow for firm  $i$ ;

$\text{G}_{it}$  = Growth Opportunity for firm  $i$ ; and

$\text{SIZE}$  = size of firm  $i$

$\text{LEV}_{it}$  = Ratio of total debt to total capital for firm  $i$  in period  $t$ .

The econometric form of the model can be specified as:

$$\text{EPS}_{it} = \alpha_0 + \alpha_1 \text{DIV}_{it} + \alpha_2 \text{DIV}_{it-1} + \alpha_3 \text{DPS}_{it} + \alpha_4 \text{CF}_{it} + \alpha_5 \text{G}_{it} + \alpha_6 \text{SIZE}_{it} + \alpha_7 \text{LEV}_{it} + \varepsilon_{it} \quad (2)$$

The a priori expectations in the model are:

$$\alpha_1, \alpha_2, < 0; \alpha_3, \alpha_4, \alpha_5, \alpha_6 > 0$$

This means that current dividend payout by firm and one period lag dividend payout by firm are expected to be less than zero, while other explanatory variables are expected to be greater than zero. The a priori expectations are that a negative relationship will emerge. As dividend payout increases, firm earnings are expected to reduce and vice versa.

Liquidity is measured through cash flow (CF), and the study uses profit after tax as a measurement for cash flow. Previous year's dividend is measured through Preceding Year Dividend ( $\text{DIV}_{(t-1)}$ ) while growth opportunity is measured through year-on change in growth opportunity of the firm (G). The growth opportunity in this model is calculated from sales/revenue growth rate. Size of the firms is measured as the log of total assets of the firms. All the independent variables were considered as related to the dividend policy decision of the respective firm.

### 3.4 Method of Estimation

The model specified in equation 2 is based on the panel regression analysis procedure that is adopted in this study. The main advantage of the panel data analysis is that it comprehensively takes the individual characteristics of the different firms used in the study. It is generally observed that firm-level behaviour is a strong factor in the determination of dividend policy and hence, this differentiation may bring endogeneity bias into the estimation. The panel data analysis helps to correct this inherent estimation problem. The basic class of models that can be estimated using panel techniques may be written as:

$$Y_{it} = f(X_{it}, \beta) + \delta_i + \gamma_t + \epsilon_{it} \quad (3)$$

The leading case involves a linear conditional mean specification, so that we have:

$$Y_{it} = X_{it}'\beta\delta_i + \gamma_t + \epsilon_{it} \quad (4)$$

Where  $Y_{it}$  is the dependent variable, and  $X_{it}$  is a -vector of regressors, and  $\epsilon_{it}$  are the error terms for  $i = 1, 2, \dots, M$  cross-sectional units observed for dated periods  $t = 1, 2, \dots, T$ . The  $\alpha$  parameter represents the overall constant in the model, while the  $\delta_i$  and  $\gamma_t$  represent cross-section or period specific effects (random or fixed).

A central assumption in random effects estimation is the assumption that the random effects are uncorrelated with the explanatory variables. One common method for testing this assumption is to employ a Hausman (1978) test to compare the fixed and random effects estimates of coefficients. This test is also used to examine the randomness of the data distribution in this study.

**Operationalisation of Variables:** **Earnings per share** is the dependent variable, and it indicates the market performance of the firms.

**Dividend Payout (DIV):** This is the main explanatory variable in the empirical analysis since it captures the amount of dividend payment the firm makes on an annual basis. This variable shows the direction of dividend policy of the firm since it gives information on the pattern of dividend activities in the firm. The variable is captured by two variants:

- (i) Current dividend payout: which is the amount of dividend the firms pay out annually. It is obtained from the information on the annual reports of the firms and the higher the value, the more favourable the dividend policy.
- ii) One period lagged dividend payout: this is the previous year's fund made available for dividend payment. The relevance of this variable derives from the fact that a firm may infer its current policy on dividend based on previous period.

In order to operationalise dividend policy, the following codes are used:

1: The Company has a policy to pay dividends (1)

2: The Company has a policy not to pay dividends (0)

A dummy variable is used to distinguish between companies that have a policy to pay dividend and companies that do not have a policy to pay dividend. Companies that have a policy to pay dividend is assigned 1, while companies that do not have a dividend paying policy is assigned 0.

**Dividend per Share (DPS)** is another variable used to capture dividend policy and it is computed as total dividend payout divided by the share equity in the company. It is used to explain the input shareholders may contribute to the dividend policy of the firm. Higher DPS may indicate that shareholders are putting more pressure on the management to declare more dividends. This may likely dry up cash flow and hamper firm performance.

**Cash Flow** is the total liquidity available in the firm. It shows the level of availability of liquidity in the firm that may eventually be used for dividend payment. Less cash flow (which can come from higher dividend paid) can reduce firm performance.

**Growth opportunity of the firm (G)** is calculated as the year-on change in the asset of the firm. A growing firm will tend to have a more liberal dividend policy and also suggest that it is performing better both operationally and in the market.

**Firm Size** is measured in the model as the log of total firm assets. Larger assets base implies larger firms which can ensure better performance.

#### 4. Empirical Results and Analysis

Analysis of data involved processing the secondary data collected from the seventeen (17) firms in our sample for the study over the five year 2009-2013. The 17 sampled firms were drawn from various sectors of the economy to have a representative sample. The procedure for the analysis is in two fold. First, in order to provide a background to the empirical analysis, statistical examination is carried out on the data so as to generate the initial characterization. Second inferential statistics are generated with regression analysis.

##### 4.1 Descriptive Statistics

Table 1 presents summary statistics on the earnings per share model. An examination of the results indicates that the mean value of earnings per share (EPS) is 3.60, while its median value is 1.3. The maximum and minimum values are 6.9 and 1.05 respectively. The skewness is 1.09; kurtosis is 617, while the standard deviation is 0.89.

In the case of the explanatory variables, the mean value of current dividend payout is 0.596, its maximum and minimum values are 14.8 and .7. Previous dividend payout has a mean value of 0.89, with maximum and minimum values of 17.1 and 2.1. Growth has a mean value of 8.11, with the highest standard deviation of 5.12, indicating greater degree of variability. Dividend per share has a mean value of 12.17, cash flow 7.92, leverage 6.01 and size 2.68. Given the negative kurtosis value of leverage of -5.61, its distribution is flat. Generally, the independent variables have moderate variability, with that of DIV, DIV (-1) and SIZE having the lowest values of 0.58, 0.62 and 1.83 as indicated by their standard deviation values of 0.58, 0.62 and 1.83 respectively, positive skewness (except for leverage), leptokurtic and highly significant J-B values. Apparently, individual firm characteristics play important roles in the behaviour of the firms in terms of the variables used in the analysis.

Table 1. Descriptive statistics

	<i>Mean</i>	<i>Median</i>	<i>Max.</i>	<i>Min.</i>	<i>Std. Dev.</i>	<i>Skew</i>	<i>Kurt.</i>	<i>J-B</i>	<i>Prob.</i>
<i>EPS</i>	3.06	1.30	6.09	1.05	0.89	1.09	6.17	78.1	0
<i>DIV</i>	0.596	0.495	14.8	3.7	0.58	1.30	5.78	49.78	0
<i>DIV(-1)</i>	0.82	0.56	17.1	2.1	0.62	3.91	3.13	27.6	0
<i>GROWTH</i>	8.11	8.53	19.0	-1.2	2.17	5.12	7.44	17.9	0
<i>DPS</i>	12.17	19.16	22.3	1.9	2.3	3.59	5.6	75.6	0
<i>CF</i>	7.92	4.89	1.64	4.27	2.65	1.97	6.20	364.3	0
<i>LEV</i>	6.01	5.42	20.86	19.23	2.22	-5.61	4.15	3.44	0
<i>SIZE</i>	2.68	1.99	3.65	0.56	1.83	0.78	1.68	0.19	0

Source: Results extracted from E-views

##### 4.2 Correlation Analysis

In order to examine the relationship among the variables, the correlation matrix is presented in Table 2. In the correlation matrix, all the relevant dividend policy variables (except size) are seen to be positively correlated with earnings per share (EPS). This implies that increase in them will invariably stimulate earnings per share. The correlations among the independent variables indicate that current dividend payout dividend is positively correlated with dividend per share, growth opportunities, cash flow, leverage and size of firms; while one lagged dividend payout exhibits a negative relationship with dividend per share. In the same vein, a positive relationship is seen between leverage and dividend per share, while a negative relationship is observed between size and EPS.

Table 2. Correlation results

	<i>EPS</i>	<i>DIV</i>	<i>DIV(-1)</i>	<i>GROWTH</i>	<i>DR</i>	<i>CAF</i>	<i>LEV</i>	<i>SIZE</i>
ROA								
<i>EPS</i>								
<i>DIV</i>	0.037							
<i>DIV(-1)</i>	0.171	0.029						
<i>GROWTH</i>	0.462	-0.289	0.309					
<i>DPS</i>	0.27	0.021	-0.191	-0.448				
<i>CF</i>	0.661	-0.279	0.309	0.17	-0.16			
<i>LEV</i>	0.512	0.613	0.091	0.852	0.19	-0.5		
<i>SIZE</i>	-0.17	0.334	0.211	0.079	0.01	0.120	0.18	

Source: Results extracted from E-views.

#### 4.3 Inferential Statistics

**Fixed-Effects Regression:** The empirical results of the EPS model is reported in table 3 below. A critical examination of the results show an impressive  $R^2$  value of 0.89, suggesting that over 89 percent of the systematic variations in earning per share is explained by the combined dividend policy and other relevant performance enhancing variables. The combined explanatory power of the model as well as its reliability shown by the F-value of 31.92 is highly significant at the 1 percent level. This validates the hypothesis that a significant linear relationship does exist between dividend policy and firm performance (measured by EPS). The D.W. statistic of 1.96 indicates that there is no autocorrelation in the empirical estimates, making the model reliably good for critical dividend policy decisions.

Table 3. Fixed-effects results for EPS

<i>Variable</i>	<i>Coefficient</i>	<i>T-Ratio</i>	<i>prob</i>
Constant	1.056	1.218	0.12
DIV	0.178	2.530	0.021
DIV(-1)	0.663	1.273	0.131
GROWTH	0.218	4.341	0.0001
DPS	0.115	2.12	0.05
CF	0.017	0.680	0.477
LEV	0.397	1.366	0.117
SIZE	-0.151	-0.694	-0.44

Source: Results extracted from E-views

More importantly, we focus on the significance of the coefficients of the explanatory variables in the model. An examination of the empirical results shows that all the coefficients (*SIZE*) have the expected signs. The coefficient of current dividend payout passes the significance test at the 5 percent level, indicating that current dividend is significant in explaining earnings per share. This is so because financial literature establishes a one-to-one positive relationship between dividend and earnings per share. The coefficient of growth opportunity passes the significance test at a high level of 1 percent, while that of dividend per share the significance test at the 5 percent level. Thus, dividend policies of firms and the growth opportunities are significant variables that influence earnings per share. All



other coefficients failed the significance test at the 5 percent level. This clearly indicates that they are not significant in explaining earnings per share of the selected firms. In particular, the negative coefficient of size underscores the fact that excessively large size could have a deteriorating impact on firm performance owing to size-diseconomies of scale which dampens the prospect of firms-performance. Thus, given bureaucratic complexities associated with large firms, the prospect of increased performance may be reduced if management does not take necessary critical decisions.

### 5. Conclusion and Policy Implications

This study examines the impact of dividend policy on firms earnings in Nigeria with the seven dividend policy variables of current dividend, one year lagged dividend, dividend per share, growth opportunities, cash flow, leverage and firms' size as independent variables. A sample of seventeen listed firms using data between 2009 and 2013 were examined with descriptive statistics, correlation analysis and panel OLS regression technique. The various analyses were employed to examine the relationship between dividend policy variables and earnings per share of firms in Nigeria. The empirical results revealed the following:

- (i) Current dividend payout has a positive and significant influence on EPS, while that of past dividend is weak. This finding supports the results of Zhou and Ruland (2006).
- (ii) Growth opportunity has a positive and significant influence on EPS.
- (iii) Leverage (ratio of total debt to total capital of firm) has a positive but not significant impact on EPS.
- (iv) Firm's size has a negative impact on EPS but not significant.
- (v) Increased cash flow tends to stimulate higher performance as the relationship between cash flow and firm performance is positive (though not significant).

Based on the empirical findings of this study, the following policy recommendations are suggested for policy action:

- (i) Financial managers should institute sound, coherent and efficient dividend policies such that will enable them determine the right dividend policy that will enhance firms' earnings in Nigeria.
- (ii) Appropriate firm disclosure with respect to dividend payout and dividend per share is needed to guard the investing public in making the right investment choices in listed firms.
- (iii) Managers of firms' financial resources should ensure that the proportion of debt capital at any given point in time is such that does not exceed the upper limit of debt finance or carrying capacity of the firms to avoid diseconomies of scale resulting from unmanageable debt capital. This will help in instituting a regulatory limit and ceiling to the proportion of debt capital such that will be performance-inducing.
- (iv) Effective and efficient management of firm's financial resources should be at the core of any credit risk management policies in Nigeria, particularly as regard poor, ineffective, inefficient and mismanagement of financial resources that has largely accounted for the failure of most firms.

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