

# An Empirical investigation of the impact of dividend policy on performance of quoted companies in a developing economy

**Harley Tega Williams**

*Department of Financial Studies, Redeemer's University, Ede, Osun State, Nigeria.*

*Tel: +2348034816214, Email: [harleytega@yahoo.com](mailto:harleytega@yahoo.com)*

**Ayodele Thomas Duro**

*Department of Financial Studies, Redeemer's University, Ede Osun State, Nigeria.*

*Tel: +2348035473097, Email: [ayodeleconcept@yahoo.com](mailto:ayodeleconcept@yahoo.com)*

**Harley Tega Williams**

*Department of Financial Studies, Redeemer's University, Ede, Osun State, Nigeria.*

*Tel: +2348034816214, Corresponding Author [harleytega@yahoo.com](mailto:harleytega@yahoo.com)*

## Abstract

This study empirically investigate the impact of dividend policy on performance of quoted companies in a developing economy. The objective of the study was to empirically test some ratio variables likely to affect dividend policy on a multivariate methodology. The sample size of this study was twenty quoted firms in a developing nation actively operating within 2005 to 2016 in the stock market. It was deduced that there is a significant positive impact of dividend pay-out ratio (DPS) on return on asset of .176. One percent increase in dividend payout ratio will lead to a corresponding increase on the average of 0.176 in return of asset (ROA). From our analysis, we found out that the coefficient of determination ( $R^2$ ) captured a significant portion of the models applied in the study but model two become stronger. We also found out that there is a positive relationship between ROE and DPS of .540 and the slope of the regression line is .129. This indicate that one percent increase of DPS will lead to a corresponding increase on ROE. The study there concluded that profit after tax should be considered sensitive in relation to dividend payment.

**Keywords:** dividend policy, performance, return on assets, regression, quoted firms, stock market

## Introduction

The subject matter of dividend policy remains one of the most controversial in corporate finance. Dividend policy has been an issue of interest in financial literature since joint stock companies came into existence. For a long time now, financial economists have engaged in modelling and examining corporate dividend policy and earnings as they affect firm's stock prices in Nigeria (Mohammed 2007). Dividend is commonly defined as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their ownership. Dividend policy is essential for the running of any business organization to flourish and perhaps it is one of the successive and impressive instrument for evaluating the performance and existence of a company. Dividends perform a great value in comforting shareholders and it is highly important because of its advert effect on share values. A stable dividend policy is expected to lead higher share prices because of the greater confidence of investors about future prospects of the company yet needs to be viewed in the wider context at the end of each financial year, each company ascertains its performance by establishing whether a profit has been made or not. Dividend policy remains one of the most consequential financial policies not only from the perspective of the company, but also from that of the shareholders, the consumers, employees, regulatory bodies and the government (Uwuigbe

etal 2012). It is usually expressed as a percentage of nominal value of the company's ordinary share capital or as a fixed amount per share. In corporate finance, the finance manager is commonly thought to face two operational decisions: the investment (or capital budgeting) and the financing decisions. The capital budgeting decisions is concerned with what real assets the firm should acquire while the financing decision is concerned with how these assets should be financed. A third decision may arise, when the firms begin to generate profits. Should the firm distribute all or proportion of earned profits in the form of dividend to shareholders, or should it be ploughed back into the business? Presumably, in taking any course of action, managers should concentrate on how to maximize the wealth of shareholder for whom the firm is managed. Managers must not only consider the question of how much of the company's earnings are needed for investment, but also take into consideration the possible effect of their decisions on share prices (Bishop et al.,2000). The term 'dividend policy' refers to "the practice that management follows in making dividend payout decisions or, in other words, the size and pattern of cash distributions over time to shareholders" (lease et al.,2000). Given the foregoing, the problem here is that in the real world, a change in the dividend policy is often followed by a change in the market value of stocks but in a developing economic the reverse may be the case subject to so many factors.

## **Review of Literature**

An interesting dividend policy theory applied in this study is the theory of A Bird in hand propounded by Linter (1957) and supported by Gordon (1963). Who argued that investors perceive a naira of dividends in the hand are relatively certain compare to future capital gain in the bush. However, the "Bird-in-hand" theory as argued by Gordon (1962). Bird-in-the hand theory on the other hand suggests that investors prefer cash in the Hand rather than a future promise of capital gains due to lower risks (Baker & Powell, 1999). The 'bird-in-hand' explanation argues that a relationship exists between firm value and dividend payout because dividends represent a sure thing for shareholders as compared to capital gains. Duke et al (2015) carried in their study of dividend policy on commercial banks in Nigeria opined that there is a positive significant relationship between dividend yield and share price. While Mukora (2014) stated that there is a significant positive relationship between dividend announcement and shares yield in the stock market of some selected firms. Robinson (2006) found different result in study about dividend policy among publicly listed firms in Barbados, according to him, most financial managers in Barbados seem to take a "bird in the hand" view of dividends and retain a strong commitment to paying dividends, and legal restrictions aside, do not vie share repurchases as an alternative to dividends, as a means of providing cash for investors. Hence, investors would prefer the "bird-in hand" (cash dividends) to "two-in-the-bush" (future capital gains). Although this hypothesis has been challenged by many researchers, yet it has received supports from studies conducted by Linter (1962), Walter (1963), Gordon (1963). Walter (1963) analyzed the influence of the dividend policy of a firm and the changes in value just like Miller & Modigliani. Walter concludes that we do live in a world with imperfections and those imperfections lead to differences in firm value, which contrasts with Miller & Modigliani's irrelevance theorem. The dividend irrelevance theory posits that the dividend payout, pattern and their dynamism do not affect affirm value. These theories aid decision on dividend payout ad patterns for the achievement of optimal results. These theories are often used to explain the relationship between dividend, performance and value of firms as previously used in the works of Adefila et al (2000). The behavior of dividend policy is one most debatable issue in the corporate finance literature and still keeps its prominent place both in developed an emerging markets (Hafeez & Attiya 2009). From the empirical literature the relationship between dividend pay-out ratio and performance is mixed.. Uwuigbe et al (2012) investigate the relationship between the financial performance and dividend payout among 50 listed firms in Nigeria for 2006 to 2010. Result shows a significant and positive association between the performance of firms and the dividend pay-out. Salehnezhad (2013) investigates corporate governance and dividend policy in companies listed in Tehran Stock Exchange for the period 2010 to 2012. Using fuzzy regression analysis, the result shows that a positive relationship exists between financial performance (stock returns) and dividend. Using regression models, the result shows no significant relation between dividend policy and performance. Interestingly, insignificant relationship occurs between dividend policy and other four explanatory variables (free cash flow, financial leverage, business risk and tax paid on dividend payment ratio).

## **Material and Methods**

The Ordinary least square estimation technique was used to examine the impact of dividend policy on the performance of quoted firms in a developing economy using data from 2010 to 2016 on a balanced panel data technique. For the purpose of clarity, this section is structured in a way that the relationship between the dependent and independents variables are shown by the regression results and the test of hypothesis using ANOVA. The variables used in this study are DPS, ROE, PAT and ROA. All the data and their computations are source from quoted firms in the Nigeria stock exchange.

**The Ordinary Least Square (OLS) Assumptions applied in this study.**

The data are sample from the firm unaudited financial statement

Key Variables in the Models:

DPS= Dividend Payout Ratio

ROE= Return on Equity

ROA= Return on Asset

PAT= Profit After Tax

**Analysis of model one**

**Table 1. Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	DPS <sup>b</sup>	.	Enter
a. Dependent Variable: ROE			
b. All requested variables entered.			

From the table above we can see that it is only two variables that is been analysed. This however, indicate the application of a linear regression analysis. The return on Equity (ROE) is regarded as the dependent variable and the Divided Pay-Out (DPS) is regarded as the independent variable.

**Table 2 Model Summary**

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.487 <sup>a</sup>	.237	.161	.284223305
a. Predictors: (Constant), DPS				

From the table above, the coefficient of determination ( $R^2$ ) is 0.237 representing 23.7%. This means that 23.7 percent of the explanatory variables are explained by the dependent variable.

**Table III Test of Hypothesis one ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.251	1	.251	3.107	.108 <sup>b</sup>
	Residual	.808	10	.081		
	Total	1.059	11			

a. Dependent Variable: ROE

b. Predictors: (Constant), DPS

The use of Analysis of variance is to test hypothesis if the variables in question is statistical significant. The P-value or Sig value is compared with that of 5% confidence interval. Since the Sig value above is .108 which is compared to 0.05 i.e  $.108 > 0.05$  we reject the null and accept the alternative hypothesis that there is a significant relationship between dividend payout ratio and firm performance (return on equity).

**Regression Analysis****Table 4 Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.129	.235		.550	.595
	DPS	.540	.306	.487	1.763	.108

a. Dependent Variable: ROE

The regression result shows that DPS has a positive relationship with ROE of 0.540 and the slope of the regression line is .129. This indicate that one percent increase of DPS will lead to a corresponding increase on ROE. However, since the model one is a simple linear regression its shows that there is a positive relationship of DPS and ROE.

**Analysis of model two****Table 5. Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	PAT <sup>b</sup>		Enter

a. Dependent Variable: DPS

b. All requested variables entered.

From the table above we can see that it is only two variables. This however, indicate the application of a linear regression analysis. The Dividend Pay-Out (DPS) and is regarded as the dependent variable and Profit After Tax (PAT) is regarded as the independent variable.

**Table 6 Model Summary**

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.497 <sup>a</sup>	.247	.171	.254716173

a. Predictors: (Constant), PAT

The model summary table shows the coefficient of determination ( $R^2$ ). The coefficient of determination explained that .247 (24.7%) of the independent variable is explained by the dependent variable. In other words, it means that 24.7% are captured by the dependent variable.

**Test of Hypothesis Two****Table 7 ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.213	1	.213	3.277	.100 <sup>b</sup>
	Residual	.649	10	.065		
	Total	.861	11			

a. Dependent Variable: DPS

b. Predictors: (Constant), PAT

The ANOVA table is used to test the hypothesis. From the table above we can deduced that the P-value is .100. From the hypothesis stated that dividend payout ratio does not have any impact on PAT. If the P-value is greater than 0.05 we reject the null hypothesis and accept the alternative hypothesis.  $0.100 > 0.05$ . From this judgement we can deduced that the P-value is greater than 0.05 therefore we reject the null hypothesis that state that dividend pay-out ratio does not have impact on profit after tax and accept the alternative hypothesis that dividend pay-out ratio affect profit after tax.

**Regression Results**

One of the unique characteristics of regression model is that it is used to for prediction.

**Table 8 Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.391	.196		1.998	.074
	PAT	3.127E-008	.000	.497	1.810	.100

a. Dependent Variable: DPS

In the result above, the profit after tax show a positive relationship with dividend pay- out ratio (PAT) of 3.127 compared to any other variable used in any of the three model. This shows that there is a significant positive relationship between profit after tax and dividend payout ratio. One -percent increase in profit after tax will lead to a corresponding increase of 3.127 in dividend pay-out (DPS).

**Analysis of model Three**

**Table 9. Variables Entered/Removed**

Model	Variables Entered	Variables Removed	Method
1	DPS <sup>b</sup>		Enter

a. Dependent Variable: ROA

b. All requested variables entered.

From the table above we can see that it is only two variables. This however, indicate the application of a linear regression analysis. The Return on Asset is regarded as the dependent variable and the Dividend Pay-Out Ratio (DPS) is regarded as the independent variable.

**Table 10 Model Summary**

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate
1	.431 <sup>a</sup>	.186	.104	.108296468

a. Predictors: (Constant), DPS

The model summary table shows the coefficient of determination ( $R^2$ ). The coefficient explained that 0.186 (18.6%) of the independent variable is explained by the dependent variable which however make the model a good fit.

**Test of Hypothesis Three**

**Table 11 ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.027	1	.027	2.282	.162 <sup>b</sup>
	Residual	.117	10	.012		
	Total	.144	11			

a. Dependent Variable: ROA

b. Predictors: (Constant), DPS

The ANOVA table is used to test the hypothesis. From the table above we can deduced that the P-value is .162. From the hypothesis stated that dividend payout ratio does not have any impact on Return on Asset. If the P-value is greater than 0.05 we reject the null hypothesis and accept the alternative hypothesis.  $0.162 < 0.05$ . From this judge we can deduced that the P-value is greater than 0.05 therefore we reject the null hypothesis that state that dividend pay-out ratio does not have impact on return on asset and we therefore accept the alternative hypothesis that dividend pay- out ratio affect return on asset.

**Table 12 Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.136	.090		1.519	.160
	DPS	.176	.117	.431	1.511	.162

a. Dependent Variable: ROA

In the regression result above, the return on asset show a negative relationship with dividend pay- out ratio (PAT). This shows that there is a significant positive impact on dividend pay- out ratio (DPS) and return on asset of .176. One percent increase in dividend payout ratio will lead to a corresponding increase on the average of 0.176 in return of asset (ROA).

### **Discussion of Results and Conclusion**

The study was motivated by the importance of dividend policy on performance. Instead of using the usual single equation analysis or the normal arithmetic computation and literature review for analyzing dividend policy, an OLS technique was applied on a multivariate analysis.

The following findings which addressed the research questions and hypotheses were made. The major findings are summarized below:

From our analysis, the researcher found out that the coefficient of determination ( $R^2$ ) is 0.237 representing 23.7%. This means that 23.7 percent of the explanatory variables are explained by the dependent variable. The researcher also found out that there is a positive relationship between ROE and DPS of .540 and the slope of the regression line is .129. This indicate that one percent increase of DPS will lead to a corresponding increase on ROE. The model two coefficient of determination ( $R^2$ ) was 24.7% which is greater than model one thereby making model two significant than model one. There is a positive relationship between profit after tax and dividend pay-out ratio (PAT) of 3.127 compared to any other variable used in any of the three model. This shows that there is a significant positive relationship between profit after tax and dividend payout ratio. ANOVA analysis was used to test hypothesis and found out that  $0.162 < 0.05$ . From this, so the researcher conclude that P-value is greater than 0.05 therefore we reject the null hypothesis that state that dividend pay- out ratio does not have impact on return on asset and we therefore accept the alternative hypothesis that dividend pay- out ratio affect return on asset. However, the use of model specification and OLS, helped the researcher to draw genuine inference and good economic policies when ratio data are used in empirical studies. The findings from this empirical study help to formulate some policy. Firstly, it is recommended that dividend policy issuance should be tied to specific range of profit after tax. A situation whereby profit after tax is below the specified range, there should be no dividend. Secondly, most quoted companies on the stock exchange market should be compelled to always publicize dividend policy annually. Lastly, Regulatory authorities should create an enable environment, techniques to audit the quoted companies' annual reports and ensure that dividend policy is been applied. The study also found empirical support for some conjectures made in the literature. Hence it is concluded that there is a linear relationship between dividend policy and performance and that good performance will lead to good dividend policy. Given the important of dividend policy and its impact on performance, it becomes expedient to continuously examine how dividend policy can better be improved.

### **References**

- Amidu and Mohammad (2007). "How does dividend policy affect performance of the firm on Ghana Stock Exchange? investment management and financial innovations,, 4(2), 103-112
- Asika, N. (2007). "Research Methodology, A process Approach" the Process of Research Design and Methodology. Lagos: Mukugamu & Brothers Enterprise.
- Baker, H. K. & Powell, G. E. (1999). How corporate managers view dividend policy?. Quarterly Journal of Business and Economics, 38 (2), 17-27.
- Bishop, S. R., Harvey, R. Crapp, R., Faff, W. and Twite, G. J. (2000). Corporate Finance. Syndey: Prentice Hall Inc.
- Chinelo, I. M. (2007). Basic Statistics and Probability. Lagos, Nigeria: Prince and Communication Publisher.
- Duke, S. B., Ikenna, N.D. & Nkamare, S. E.(2015). Impact of Dividend Policy on Share Price Valuation in Nigerian Banks. Archive of Business Research, 3(1)156-170.
- Gordon, M. J. (1962). "The savings Investment and Valuation of a corporation". The Review of Economics and Statistics, 44, 37-51.
- Hafeez Ahmed & Attiya Yasmin (2009). The Determinants of Dividend Policy in Pakistan.
- James A. Robinson (2006). Economics Development and Democracy. Annual review. Pp 503-527.
- Lease, R. C., John, K. , Kalay, A., Loewenstein, U. and Sarig, O. D., (2000). Dividend Policy–Its Impact on Firm Value. Harvard Business School Press, Boston, MA.
- Mohammad Ahmadi, Abbas Ali Pouraghajan, Seyed Hassan Salehnezhad 2013. Performance measurement of receivable accounts' risk management: A case study of Tehran Stock Exchange. Journal of Management Science letters. Volume 3 Issue 6.

- Mukora, W.Y.M, (2014). The effects of dividend announcement on stock returns of firms listed at Nairobi Securities Exchange. Masters of Science Thesis. University of Nairobi. Unpublished.
- Oluwakayode, E. (2007). Success in Business and Social Statistics . Lagos: Julius Educational Publishers.
- Uwuigbe, U & Jafaru J. A (2012). Dividend policy and firm performance: A study of listed firms in Nigeria Accounting and management information system. Vol. 11, pp. 442-454.
- Walter, J. (1963). "Dividend Policy; it influence on the value of the enterprise". The journal of finance, 18(2), 280-291.