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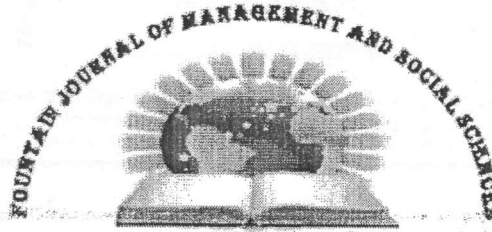
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DIVIDEND POLICY AND SHARE PRICE VOLATILITY IN NIGERIAN BANKING INDUSTRY

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Abstract

Dividend policy influences the share price movement and volatility of share price are important to investors because the lesser the volatility of a given share, the greater the desirability to investors. The study examines the effect of dividend policy on share price volatility covering two categories of firms in the Nigerian banking industry; firms that declared dividend and those that retained their earnings, covering a period between 2008 and 2013. Three firms were randomly selected for each category, the study also used panel data analysis and the choice of the six banks was ranked based on their contribution to Gross Domestic Product. The result for firms that declare dividend shows that there is a positive relationship between dividend payout ratio, earnings per share, size of the bank and share price volatility, while there exist a negative relationship between earnings volatility and share price volatility, also the result for the firms that retained their earnings shows that there is negative relationship between retained earnings, earnings volatility and share price volatility and also a positive relationship between earnings per share, size of the bank and share price volatility. The study concludes that declaration of dividend by banks causes more volatility in share price movement while retained earnings causes less volatility in share price movement of banks in Nigeria. It is recommended that banks should concentrate more on retaining all their earnings and making judicious use of the funds by committing it in a profitable and viable investment opportunities while, the Investors should also concentrate more on capital gains as a return for their investment in a share of a company instead of collection of dividend.

Keywords: Dividend Policy, Retained Earnings, Share Price

1.0 Introduction

Dividend policy has been a common subject of research for more than half of a century, despite years of theoretical and empirical research, dividend policy still remains a source of controversy among organizations. Some scholars such as Miller and Modigliani suggested that under a perfect market situation, dividend policy is irrelevant, as it does not affect the value of a firm. They argue that the value of the firm depends on the firm's earnings that results from its investment policy, while it was against this assumptions that relevance of dividend theory was propounded by Walter and Gordon, they affirmed that dividend policy is relevant in influencing the value of a firm and that the dividend policy of a firm depends on the availability of investment opportunities and the relationship between the firms internal rate of return and its cost of capital. Black (1976) opined that a company that pays no dividend will be more attractive to investors than a company that pays dividend while, Jo and Pan (2009) also contradict by asserting that dividend payment could provide a signals to the investors that the company is complying with good corporate governance practice. This conflict in theories can be ascribed to the fact that there are different assumptions underlining these theories, however in reality some of this assumptions do not hold.

In Nigerian Stock market, declaration of dividend has not been given a total consideration by firms, this is because in the last six years, only twenty nine (29) firms have been declaring dividend, while others have been retaining their profits (Okafor, Mgbame and Chijioke-Mgbame, 2011). A change in dividend policy has both favorable and unfavorable effects on the firm's stock price. Higher dividend means higher immediate cash flows to investors, which is good, but lower future growth, which is at the same time is bad (Lintner, 1956; Gordon, 1959; Modigliani, 1982). The basic question that arose with respect to dividend payment was: should the firm distribute all or proportion of earned profit in the form of dividend to shareholders; or should it be ploughed back into the business. Investors are by nature risk averse and the volatility of their investment is of important to them because it is a measure of the level of risk they are exposed to. Companies realized that investors pay close attention to their dividend returns and that the riskiness may affects the valuation of the firm's share in the long run. This makes the volatility of shares price as important to firms as it is to investors, the lesser the volatility of a given share, the greater the desirability to investors.

Mandelbrot (1963); Fama (1965); Black (1976); Rajni and Manhendra (2007) asserted that stock price tends to rise when new information is released into the market. Owing to this dynamic, research has shown that a lot factor influences the volatility of share price such as interest rate, size of the firm, inflation rate and earnings volatility. There is also an inverse relationship between retained earnings and cash dividend i.e. when the amount of retained earnings is high, the company declares less dividend and vice versa. In the case of declaring more dividend, which in turn reduces retained earnings, it can be deduced that share price volatility, which is largely connected to a firm's dividend policy cannot be unaffected. Owing to this backdrop, this study examine the effect of dividend policy on share price movement in Nigerian banking industry The

study covers two categories of firms in the Nigerian banking industry; firms that declared dividend and those that retained all their earnings, covering a period between 2008 and 2013. Three firms are randomly selected for each categories for analysis and the choice of the six banks was ranked based on their contribution to Gross Domestic Product for 2013. The rest of the paper is organized as follows: the literature review on dividend policy and share price volatility, followed by the discussion of the theoretical framework, method of estimations adopted for the study and also findings, conclusions and recommendations.

2.0 Literature Review

2.1 Conceptual Issues on Dividend Policy and Share Price Volatility

Dividend policy decision is one of the three decisions of financial management because it affects the financial structure, the flow of funds, corporate liquidating and investors' attitudes and it's also a very crucial controversial area of financial management (Weston and Copeland, 2001). The main aspect of dividend policy is to determine the amount of earning to be distributed the shareholder and the amount to be retained in the firm. (Pandey, 2010). Van Horne (2000) opined that dividend policy is the third major decisions of a firm, i.e, the percentage of earnings a firms pays in cash to its stockholders. He further explained that dividend payout reduces the amount of earnings retained in the firm and affects the total amount of internal financing and also Hussaineyet *al.*, (2010) asserted that dividend policy is a firm policy with regards to paying out earnings as dividend versus retaining them for re-investment in the firm.

Empirically, Nishat and Irfan (2003) examined the impact of dividend policy on stock price in Pakistan, 160 listed companies in Karachi stock market for the period between 1981 to 2000, Zakaria *et al.*, (2012) studied the impact of dividend policy on share price volatility of the Malaysian listed construction and material companies, Zahra and Mousa (2014) investigated the impact of dividend policy on share price volatility in Tehran Stock market, Hussaineyet *al.*, (2010) also examined the relationship between dividend policy and share price changes in the UK stock market, while Ilaboya and Aggreh (2013) observed the relationship between dividend policy and share price volatility across companies listed in the Nigerian Stock exchange market, 26 firms were selected over a period (2004- 2011).

Nishat and Irfan (2003) observed that both dividend policy (dividend yield and payout ratio), size and leverage have significant impact on share price volatility, while the earnings volatility has a negative relationship with share price volatility, Zakaria *et al.*, (2012) also discovered that 43 percent of the changes in the share prices are explained by dividend yield, dividend payout ratio, growth, size, leverage and earnings volatility and that dividend payout ratio significantly influences changes in share price, and also the greater the size of the firm, the more the changes in share price. The study further reveal that dividend yield, investment growth and earnings volatility does not significantly influence the changes in company's share prices, while leverage influence the movement in the share price negatively.

Zahra and Mousa. (2014) also discovered that dividend policy payout ratio has a significant negative effect on stock price volatility, while asset growth rate has a significant positive effect on stock price volatility. Hussainey, Mgbame and Chijioke-Mgbame (2010) found that there exist a positive relationship exist between dividend yield and stock price changes and a negative relationship exists between dividend payout ratio and stock price changes, also firm's growth rate, debt level, size and earnings explain stock price changes while, Ilaboya and Aggreh (2013) revealed that dividend yield exerts a positive and significant influence on share price volatility, while dividend payout exerts a negative and insignificant influence on share price volatility.

2.2 Theoretical Framework

There are various theories underlining the foundation of dividend theory and they are categorized into two major aspect; relevance of dividend policy and irrelevance of dividend theory. The two theories are explained below:

2.2.1 Dividend Relevance

The dividend relevance theory is majorly propounded by Gordon (1959), the theory states that dividend policy is relevant in explaining the share price movement also relevant in influencing the value of the firm. It is based on the following assumptions: all equity firm; no external financing; constant return; constant cost of capital; perpetual earnings; no taxes; constant retention and cost of capital greater than growth rate. According to Gordon's model, dividend policy is irrelevant when $r = k$, when all other assumptions are held valid. But when the simplifying assumptions are modified to conform more closely to reality, the theory concludes that dividend policy does affect the value of a share even when $r = k$. This view is based on the assumptions that under conditions of uncertainty, investors tends to discount distant dividends (capital gains) at a higher rate that they discount near dividends. Investors behave rationally, they are risk averse and therefore, have a preference for near dividends to future dividends. The logic underlying this theory can be described as the bird-in-hand argument.

2.2.2 Dividend Irrelevance

Miller and Modigliani (1963) asserted that under a perfect market situation, the dividend policy of a firm is irrelevant, as it does not affect the value of a firm. The theory postulated that the value of a firm depends on the firm's earnings that result from its investment policy. MM hypothesized that the splits of earnings between dividends and retained earnings is of no significance in determining the value of the firm. However, MM hypothesis of irrelevance is based on the following assumptions: perfect capital market; no taxes; investment policy; no risk. MM dividend hypothesis opined that a firm which pays dividends will have to raise funds externally to finance its investment plans. MM's argument, that dividend policy does not affect the wealth of the shareholders, implies that when the firm pays dividends, its advantage is offset by external financing.

Brenann (1971) supported the irrelevance theory of Miller and Modigliani and concluded that any rejection of this theory must be based on the denying of the principles of symmetric market rationality and the assumption of independence of irrelevant information while, Black and Scholes (1974) created 25 portfolios of common stock in New York Stock Exchange for studying the impact of dividend policy on share price from 1936 to 1966. Their findings showed no significant association between dividend yield and expected return. They reported that there is no evidence that different dividend policies will lead to different stock prices.

3.0 Methodology

The framework that serves as a theoretical underpinning for this study is the Gordon's model of dividend policy, propounding that dividend policy is relevant in influencing the share price movement. Shareholders' return consists of two component: dividends and capital gains. Empirical evidence has also listed some factors that influences share price volatility and they are: interest rate, inflation rate, leverage, size, earnings volatility, dividend yield and dividend payout ratio as well as government policies. No studies has considered retained earnings as a factor, this is one of the aspect this study tends to contribute to existing knowledge owing to the fact that retained earnings is also a dividend policy that influences total value of a firm and ultimately influences capital gains to investors.

3.1 Model Specification

This study follows a similar research model used by Misbah, Shafiq and Muhammed (2013) and Muhammad, Aref and Nejat (2012). Which was given as:

$$SPVol = f(PR, DY, EV, Size, Growth, EPS)$$

$$SPVol = \beta_0 + \beta_1 PR + \beta_2 DY + \beta_3 EV + \beta_4 Size + \beta_5 Growth + \beta_6 EPS$$

Where:

SPVol = Share Price Volatility

PR= Payout Volatility

DY = Dividend Yield

EV = Earnings Volatility

Size = Firm Size

Growth = Growth in Asset

EPS = Earnings per Share

Following literature, the model for this study is specified in two categories as share price volatility, being a function of dividend payout and share price volatility being a function of

retained earnings. According to theory, other factors that cause share price volatility were also included in the model. The model used for the study is re-modified below:

Model 1: Firms paying Dividend

$$SPV_{it} = f(DPR, EPS, Size, EV) \dots \dots \dots \text{equation 1}$$

$$SPV_{it} = \beta_0 + \beta_1 DPR_{it} + \beta_2 EPS_{it} + \beta_3 Size_{it} + \beta_4 EV_{it} + \mu_{it} \dots \dots \dots \text{equation 2}$$

Model 2: Firms with retained earnings only

$$SPV_{it} = f(RET, EPS, Size, EV) \dots \dots \dots \text{equation 1}$$

$$SPV_{it} = \beta_0 + \beta_1 RET_{it} + \beta_2 EPS_{it} + \beta_3 Size_{it} + \beta_4 EV_{it} + \mu_{it} \dots \dots \dots \text{equation 2}$$

Where:

SPV = Share Price Volatility representing the dependent variable, while the independent variables includes:

DPR= Dividend Payout Ratio

RET= Retained Earnings

EPS = Earnings per Share

Size = Firm Size

EV = Earnings Volatility

μ = Error term

The subscripts i and t refer to the cross-dimension and time series dimension of the model respectively, explaining the panel nature of the model.

ε_{it} is a composite error term, which can be decomposed further into specific effects and remainder disturbance term. The population of the study comprises of the twenty one (21) banks in Nigeria, while the sample size consists of six (6) banks in Nigeria, the choice of the six banks was ranked based on their contribution to Gross Domestic Product for 2013. The model is estimated using panel data analysis for the period 2008-2013. The data used for the study are secondary in nature implying that data will be obtained from annual report of various companies.

4.0 Result and Conclusion

4.1 Presentation of Result

The table presented below is the result for hypothesis one which is stated as: There is no significant effect of dividend payout ratio on share price volatility in Nigerian banking industry.

Table 4.1 Model 1

Independent Variables	Pooled OLS		Fixed Effects		Random Effects	
	Coefficient	P-val	Coefficient	P-val	Coefficient	P-val
Constant	-6.004	0.05	-12.82	0.0001	-6004	0.346
Logdpr	0.26579	0.087	0.19212	0.456	0.2658	0.045
Logeps	-0.1308	0.0001	0.07810	0.077	-1308	0.09
Logsize	0.3689	0.0461	0.8201	0.0001	0.3689	0.05
Logev	0.1004	0.087	-0.0424	0.05	0.100	0.0912
F-stats			0.6804			
Rho			0.864		0	
Hausman Test			0.0004			

Source: Author's Computation, (2015).

4.2 Interpretation of Result for Model 1

The result of the three static panel data estimation techniques for model 1 is presented above. The statistical significance of the f-stats of the fixed effect estimator suggests the inappropriateness of the pooled OLS estimator, thus explaining that there are significant individual (banks) effects in the model. In comparison with the random effect estimator, the probability value of the Hausman test shown in the table below suggests the null hypothesis that the RE estimator consistency is rejected, explaining that bank level individual effects does appear to be correlated with the regressors. Therefore, the result generated from using the fixed effect estimator is used to describe the relationship between dividend policy and share price volatility in Nigeria banking industry between 2008 and 2013. The Fixed Effect estimator provides an F-test of null hypothesis that constant terms are equal across banks. Its rejection therefore affirms that they are not equal, and there is the significance of individual effects in the model.

The result also shows that dividend payout ratio, earnings per share, size and earnings volatility are statistically significant in explaining the variation in share price volatility. The estimate of rho explains that almost all variation in bank share price volatility is related to inter-bank differences in volatility. Inferring from the result above, an increase in dividend payout ratio, earnings per share and size of the bank by 1 percent, will result into an increase in share price of the bank by 0.192%, 0.0781% and 0.8201% respectively. Likewise, an increase in earnings volatility of the bank by 1 percent, will result into a decrease in share price of the bank by 0.0424%. The result also shows that there is a positive relationship between dividend payout ratio, earnings per share, size of the bank and share price volatility while, there is a negative relationship between earnings volatility and share price volatility.

Table: 4.2 Model 2

The table presented below is the result for hypothesis two which is stated as: There is no significant effect of retained earnings on share price volatility in Nigerian banking industry.

Independent Variables	Pooled OLS		Fixed Effects		Random Effects	
	Coefficient	P-val	Coefficient	P-val	Coefficient	P-val
Constant	1.0704	0.05	4.8487	0.912	-0.2089	0.846
Logret	-0.20897	0.043	-0.246	0.001	-0.024	0.000
Logeps	0.02402	0.032	0.3161	0.067	0.18635	0.050
Logsize	0.1864	0.049	0.01459	0.039	0.0783	0.046
Logev	0.0783	0.09	-0.07167	0.089	1.0704	0.080
F-stats			0.6804			
Rho			0.6421	0		
Hausman Test			0.001			

Source: Author's Computation, (2015).

4.3 Interpretation of Result Model 2

The result generated from using the fixed effect estimator is also used to describe the relationship between dividend policy and share price volatility in Nigeria banking industry between 2008 and 2013. The Fixed Effect estimator provides an F-test of null hypothesis that constant terms are equal across banks. Its rejection therefore affirms that they are not equal, and there is the significance of individual effects in the model. The result revealed that retained earnings, earnings per share, size and earnings volatility are statistically significant in explaining the variation in share price volatility. The estimate of rho explains that almost all variation in bank share price volatility is related to inter-bank differences in volatility. Inferring from the result above, an increase in earnings per share and size of the bank 1 percent, will result into an increase in share price of the bank by 0.316% and 0.014% respectively, signaling a positive relationship. While, an increase in retained earnings and earnings volatility by 1 percent, will result into a decrease in share price volatility of banks by 0.245% and 0.0716%. It was also discovered that there is negative relationship between retained earnings, earnings volatility and share price volatility while, there is also a positive relationship between earnings per share, size of the bank and share price volatility.

4.4 Discussion of Findings

The study revealed that declaration of dividend by banks causes more volatility in share price movement while retained earnings causes less volatility in share price movement of banks in Nigeria. It was also discovered that size of the bank and earnings per share are also another major factor causing volatility of share price in the Nigerian banking industry while earnings volatility posed a negative relationship with share price volatility. Thus, the study uncovered that dividend

payout ratio significantly causes more share price volatility than the retained earnings in Nigeria banking industry. It is also equally important to assert that the result of this study is consistent with the work of Nishat and Irfan (2003) and also Zakaria *et al.*, (2012). The study concludes that declaration of dividend by banks causes more volatility in share price movement while retained earnings causes less volatility in share price movement of banks in Nigeria. Furthermore, it was also revealed that size of the bank and earnings per share are also another major factor causing volatility of share price in the Nigerian banking industry.

4.5 Policy Recommendations

Based on the conclusion, this study recommends the following policies

- (i). Banks should concentrate more on retaining all their earnings and making judicious use of the funds by committing it in a profitable and viable investment opportunities.
- (ii). Investors should also concentrate more on capital gains as a return for their investment in a share of a company instead of payment of dividend.
- (iii) Further research should be carried on investigating the effect of retained earnings on the value of a firm.

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