

DIVIDEND IRRELEVANCE THEORY WITH REFERENCE TO THE MODIGLIANI AND MILLER (M-M) CONTROVERSY: ANALYSIS OF THE BANKING INDUSTRY (2000-2014)

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Abstract

The study examines the Dividend Irrelevance Theory on the banking industry and its irrelevance to the shareholders' wealth based on data from the Nigerian stock Exchange (2000-2014) with reference to the Modigliani and Miller (M-M) that hypothesised that in a perfect world, dividends are irrelevant. The outcome of the regression shows that lagged Retained Earnings (RE) which is the retention policy of the firms is found to have a positive as well as significant relationship with Market Price of Shares (MPS), indicating that an increase in Retained Earnings undoubtedly resulted in a positive increase in the Market Price of Shares (MPS) thus, having significant impact on Shareholders' wealth. The significant nature of Retained Earnings is affirmed from the probability value of 0.0000 equivalent to 1% significant level. Specifically, the positive nature of the result means that a ₦1 increase in Retained Earnings results in a significant increase of ₦2.90 in shareholders' wealth. Dividend per share (DPS) has positive and significant impact on MPS. This is observed from the probability value of 0.0000 as well as the coefficient of 2.02. It is significant at 1% depicting that a ₦1 change in Dividend per share (DPS) results in an increase of ₦2.02 in MPS, thus, indicating that Dividend per share (DPS) has a strong positive impact on firms' value which ultimately influences shareholders' wealth thus negating the M-M irrelevance paradigm. It is therefore recommended that while growth firms and normal firms can conveniently follow the path of the irrelevance theory of Modigliani and Miller, the declining firms can follow the path of the Dividend preference theory popularly known as the dividend relevance (The bird in the hand) theory.

Keynotes: Modigliani and Miller (M-M), NSE, Dividend Policy, Dividend Irrelevance Policy, Stock Price, Banking Industry.

Introduction

The debate over dividend policy has been ongoing and it has become a growing controversy in the field of finance. The question is whether dividend is really irrelevant to the wealth of the Shareholders when compared to the relevance theory of dividend policy. After researching the literature, it is clear that dividend policy affects the financial climate of a firm's decision-making and investment policy. Gordon and Lintner (1959) model does not explain dividend policy as well as one would like to believe, but to them, dividends actually matter and have a high effect on the economic policy of firms and that in a real world situation, the bird in hand theory makes sense. Investors feel in control when actual cash decisions are in their hands (Harmon: 2006).

The significance of the study is that Miller and Modigliani (1961) affirmed that dividend payment is irrelevant and maintained that given the investment decision of a firm, the dividend payout

ratio does not affect shareholders' wealth. They both argued that the value of the firm is dependent only on the firm's earnings or its investment policy. Splitting of earnings between dividend and retained earnings has no effect on the firm's value thus, maintaining that the theory of dividend irrelevance would definitely hold if the firm increases external funds in order to finance investment opportunities with positive net present value by issuing debt instead of shares. The proposition of this theory is that given two firms with the same set of obtainable investment opportunities, their values would be the same even if one pays all its earnings as dividend and the other paid no dividends at all, provided that the two firms belong to the same risk set.

According to Pandey, (2002) Modigliani and Miller's model of Irrelevance is based on the following assumptions:

- i. The Firm operates in perfect Capital Markets where investors behave rationally; Information is freely available to all; transaction and flotation cost do not exist; Perfect Capital Markets also imply that no investor is so large enough as to affect the market price of shares.
- ii. Taxes do not exist or there is no difference in the tax rate applicable to the Capital Gains and Dividends. This means that investors value one Naira of Dividend as much as one Naira of capital gains.
- iii. The Firm has a fixed investment policy.
- iv. Risk of uncertainty does not exist i.e. investors are capable of forecasting future prices and dividends with certainty and one Discount Rate is appropriate for all Securities and periods in time.

Thus, $r = k = kt$ for all values of t .

The Modigliani and Miller Theorem which is purely based on the Irrelevance proposition presents conditions under which a Firm's financial decisions do not affect its value is seen as a cornerstone in modern Corporate Organizations. The major concern of the Dividend Policy is, of course, the trade-off between Dividend Payout and Retained Earnings (Modigliani, 1980). He explained the theorem thus:

The relevant question to the problem to which solutions will be preferred here is whether Gross Retained Earnings and Dividend per share both have negative relationship on the market price of shares which stands as proxy in determining the wealth of Shareholders. Therefore, to establish the significance of the Modigliani and Millers (1961) irrelevancy theory of dividend policy with reference to the Banking sector for the period 2000-2014, the following hypotheses are advanced towards proffering solutions.

H₀₁: There is no significant positive relationship between Dividend per Share and Shareholders' wealth.

H₀₂: There is no relationship between Retained Earnings of Firms and the market price of Shares.

Literature Review, Conceptual Clarifications and Theoretical Framework

Campbell (2004) defines Dividend Policy as 'the standard by which a firm determines the amount of money to be paid as dividends, i.e., the pay-out policy that Managers pursue in deciding the extent and pattern of cash distributions to shareholders over a period in time. Dividends are payments made by a firm to its Shareholders. It is the portion of corporate profits paid out to

Shareholders". When a corporation earns a profit, the money can either be re-invested in the business in the form of Retained Earnings, or it can be paid to the Shareholders in the form of Dividend.

Foong, et al, (2007) opine that Dividend Policy simply refers to the "payout policy which Managers generally adopt in deciding the portion and the mode of distributions to Shareholders usually in cash over time". Miller and Modigliani (1961) hypothesized that in any given perfect Capital Market, the dividend decision does not affect Firm's value and is thus, irrelevant. Nissim and Ziv (2001) and Uwuigbe, et al (2012) define Dividend Policy as the regulations and guidelines that firms use to decide to make Dividend payments to Shareholders.

However, most of the studies by both financial practitioners and majority of intellectuals do not agree on this assertion. Many theories have been used by these scholars with regards to how Dividends affect the value of firms and the pattern Managers follow in deciding on Dividend Policy. Essential determinants for the dividend decisions include among others, protection against Liquidity; After-tax Earnings of firms; Liquidity and Cash Flow consideration; Stockholders' expectation/Preference; Future earnings, past dividend practices, return on investment, industry norms, legal constraints, growth Prospects; Inflation and Interest Rate (Adelegan, 2001).

Modigliani and Miller (1961) however, hypothesized that "in the real world, a change in the Dividend Rate is often followed by a change in the market price (sometimes spectacularly so). Such a phenomenon could not be said to be incompatible with Irrelevance to the extent that it was merely a manifestation of what might be called the "Informational Content of Dividends". Consequently, Modigliani and Miller's (1961) model (M-M) Dividend Policy of the Firm is said to be irrelevant as it does not affect the wealth of the Shareholder. It has been observed that the value of the Firm depends on the Firm's earning, which result from its investment policy. Our literature proves that Dividend Payment should have no impact on Shareholders' value in the absence of taxes as well as market imperfections. Hence, companies should invest excess funds in the positive net present value projects instead of paying them out to the Shareholders (Koutsoyannis, 1981).

The Modigliani and Miller Theorem which is purely based on the Irrelevance proposition presents conditions under which a Firm's financial decisions do not affect its value is seen as a cornerstone in modern Corporate Organizations. The major concern of the Dividend Policy is, of course, the trade-off between Dividend Payout and Retained Earnings (Modigliani, 1980). He explained the theorem thus:

".... with well-functioning markets (and neutral taxes) and rational investors, who can 'undo' the corporate financial structure by holding positive or negative amounts of debt, the market value of the firm – debt plus equity – depends only on the income stream generated by its assets. It follows, in particular, that the value of the firm should not be affected by the share of debt in its financial structure or by what will be done with the returns – paid out as dividends or reinvested (profitably)".

To Miller and Modigliani (1961) they argue that with perfect Capital Markets, the Dividend decision does not affect Firm's value and is, therefore, irrelevant. However, most financial and Capitalisation experts do not believe in the M-M theory. They presented various theories about how Dividends affect Firm's value and how policy decisions on Dividends should be spelt out by Managers of Corporate Organizations. There are many prospective determinants for the Dividend decisions. The more prominent determinants are concerned merely with those relating to protection against Liquidity; After-tax Earnings of the Firm; Liquidity and Cash Flow consideration; Stockholders' expectation/Preference; Future Earnings; Past Dividend Practices; Return on

Investment; Industry Norms; Legal Constraints; Growth Prospects; Inflation and Interest Rate (Foong, et al 2007). Thus, de Boyrie (2001) opines that there exists symmetric information such as:

- a) Investors are seen to be indifferent between Dividends and Capital gains. The investment decision is dependent on Dividend policy thus; the Firm's investment policy is fixed.
- b) Risk of uncertainty does not exist. That is, investors are able to forecast future prices and Dividend with certainty and similar Discount Rate is appropriate for all Securities and all time periods.

Thus: $r = k = kt$ for all t .

Under the M-M assumptions will be equal to the discount rate and it is identical for all Shares. This is in direct opposition to the "Bird in Hand" theory, which states that the Firm's value will be maximized by high Dividend payment ratio. The Dividend Policy debate can be summed up with the two positions. Miller and Modigliani (MM) (1961) and their dividend policy Irrelevance thesis is based on the proposition relating to certain binding assumptions about investors and perfect Capital Markets. Much like the M-M work on the Capital-structure Irrelevance proposition, Modigliani and Miller also theorised that, with no taxes or bankruptcy costs, Dividend Policy is also irrelevant indicating that there is no effect from Dividends on Company's Capital structure or Stock price (Praevaleo.htm).

Modigliani and Miller's Dividend-Irrelevance theory opines that investors can affect their return on a Stock irrespective of the Stock's Dividend. For example, suppose, from an investor's perspective that a company's Dividend is very substantial and that investors could then buy more Stock with the Dividend that is over the investor's expectations. Or 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 that he/she expected. As such, the Dividend is irrelevant to the investors, meaning that the investors care little about a Company's Dividend Policy since they can simulate their own.

Miller and Modigliani (MM) (1961) have shown that "the value of a Firm is unaffected by Dividends observing that these effects are the result of the information converged by these Dividend changes, not due to the Dividend itself". Modigliani and Miller (1958) posit that Dividends are irrelevant. They based this hypothesis, which they proved mathematically, on a number of assumptions" (Hewitt, 2002).

Dividends are mostly differently valued to Retained Earnings (capital gains). As a result of uncertainty of future cash flow, investors will often tend to prefer Dividends over Retained Earnings (UWS, 2005). According to Modigliani and Miller (M-M 1961); Dividend Policy of the Firm is irrelevant as it does not affect the wealth of the shareholders. They argue that the value of the Firm is dependent on the Firm's earnings which ultimately results from its investment policy thus, when investment decision of the Firm is given, Dividend decision which is the split of earnings between Dividends and Retained Earnings is of no significance in determining the value of the Firm. Consequently, M-M's hypothesis opines that Dividends are irrelevant is unstable. In fact, Dividends are relevant and influence the wealth of the Shareholders. Koch and Sun (2004) as cited in the work of Scott and Patel (2006) is said to have found that Dividend changes contain information about the persistence of past earnings changes, not necessarily future earnings while it is assumed that existing empirical tests cannot help us to distinguish between the fact that:

- i) Dividends are explicit signals of future earnings;
- ii) Dividends convey information but does not imply that they are being used as signals; and
- iii) Dividends convey information on future earnings or something else (such as Agency Effect).

In spite of the many published theoretical and empirical studies, we are yet to understand the factors that explain the firm's pay-out policy. Fischer & Black (1976) wrote and finally concluded that ".....the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together". They opined that in spite of the number of researches providing theoretical as well as empirical evidence on different aspects of dividend policy yet a lot of issues are yet to be resolved.

In spite numerous theoretical arguments for not paying Dividends, Companies often pay cash Dividends to their Shareholders in order to signal information about the future earnings prospects. When a Company pays a Dividend in surplus of its residual funds, it implies that Management and the Board of Directors believe that the payment has a favourable effect on Shareholders' wealth.

The frustrating aspect is that we have so little in the way of clear generalization from the empirical evidence. The lack of firm footing for predicting the long- run effect of a specific Dividend Policy on valuation makes the Dividend decision more complex in many ways than either the investment or financing decisions. Carlsberg (1962) in "Analyzing investment decision" argued that since a Company's value is increased by undertaking prospects with a positive Net Present Value (NPV), it would be logical to assume that the optimal Dividend Policy would be not to pay any Dividend but rather reinvest all earnings. Gordon (1959) also contends that Dividends are significant to determine the Share prices of a Firm. Shareholders prefer current returns which are certain and therefore give a premium to the constant returns and discount future returns which are uncertain. Miller and Modigliani (1961) explain that a firm's Dividend Policy is irrelevant and has no effect on the Share prices of the Firm. They are of the view that it is the investment policy through which Firms can raise its Share value and hence this should be given more importance. The researchers choose to adopt the Relevance Theory that prefers the payment of Dividends than the Irrelevance Theorem of Miller and Modigliani (1961) that adopts Capital Gain.

Methodology of the Study

Sources of Data and Sample Size:

Secondary sources of data from 76 quoted Firms on the Nigerian Stock Exchange spanning a period of 2000-2014. The justification for the choice of the period 2000-2014 is to assess the impact of the first fifteen years of the new millennium on shareholders wealth in Nigeria. In comparison to previous studies, majority have based their works on a 10-year stream as could be found in the works of Azhagalah and Sabari (2008), Adesola and Okwong (2009), and Musa (2009). This is an improvement over previous studies relevant for a pooled panel data.

i). Variables Measurement

From the literature review, a multitude of both dependent and independent variables have been acknowledged and derived from the topic. Various authors such as Oyejide (1976), Adesola (2004), Azhagalah and Sabari (2008), Musa, (2009), have based their studies on a single dependent variable with a pool of independent variables in their studies.

a). Dependent Variable

The Market Price of Shares (MPS) has been taken as the dependent variable of the study and stand as a proxy for Shareholders' wealth. The MPS was gotten for the end of year reports for each year from 2000-2014. Market Value of Equity is however, the same as Market price of Shares used as proxy for Shareholders' wealth in the work of Azhagalah and Sabari (2008). The use of MPS as proxy for Shareholders' wealth can be found in the work of Azhagalah and Sabari (2008) in which they considered Market Value of Equity of the Companies under study as proxy for measuring the Shareholders' wealth and also used as the dependent variable. Market Shares is defined as the Share of a market held by a particular Firm. It is the percentage of an industry or market's total sales that is earned by a particular Firm over a specific time period. The size of this depends largely on the definition of the market.

b). Independent Variables

The researchers adopted the various independent variables used in this work from Azhagalah and Sabari(2008) with slight modification. The independent variables provided by the researchers are expressed as follows:

- a) Gross Retained Earnings (RE) used as proxy for determining retention policy.
- b) Dividend per Share (DPS) used as proxy for determining Dividend Policy of Firms.

ii). Model Specification

Multiple regression method has been used to test the two hypotheses highlighted in the introduction and the model specified for this study is adopted from the work of Azhagalah and Sabari (2008) which studied the Behaviour of Firms quoted on the Bombay Stock Exchange Market with modification in order to incorporate the variables in the model which is given as follows:

Model Specification

Multiple regression method has been used to test the two hypotheses highlighted in section one and the model specified for this is adopted from the work of Azhagalah and Sabari (2008) which studied the behaviour of firms quoted on the Bombay Stock Exchange.

$$MPS_{it} = \alpha + b DPS_{it} + e_{it} \text{-----} (1)$$

$$MPS_{it} = \alpha + b DPS_{it} + c RE_{it} + e_{it} \text{-----} (2)$$

$$MPS_{it} = \alpha + b DPS_{it} + c RE_{it} + d EPS_{it} + e_{it} \text{-----} (3)$$

$$MPS_{it} = \alpha + b DPS_{it} + c RE_{it} + d EPS_{it} + e PER_{it} + e_{it} \text{-----} (4)$$

$$MPS_{it} = \alpha + b DPS_{it} + c RE_{it} + d EPS_{it} + e PER_{it} + f DVPMT_{it} + e_{it} \text{-----} (5)$$

Where:

MPS_{it} -- Market price per share (Proxy for Shareholders' wealth)

DPS_{it} -- Dividend per share (Proxy for Dividend policy)

RE_{it} -- Retained Earnings (Gross) (Proxy for retention policy)

Others are:

EPS_{it} -- Earnings per Share

PER_{it} -- Price Earnings Ratio

$DVPMT_{it}$ -- Dividend payout (Gross)

Where: i stands for firm i-----n.

Analysis and Discussion of Results

Table1: Regression Results for all the 76 Firms using Fixed Effects / Random Effect Models

MPS (Dependent Variable)		Result of Regression Model (Hypotheses)				
		Fixed Effects Model			Random Effects Model	
Variables (Independent)	Coeff	T-Stat	Prob	Coeff	T-Stat	Prob
C (Intercept	0.8457	6.3061	0.0000*	0.5571	1.3577	0.1746
MPS _{t-1}	0.8909	360.75	0.0000*	0.8987	370.31	0.0000*
Gross RE	2.6556	22.04	0.0000*	2.5655	21.50	0.0000*
EPS	0.1455	7.7106	0.0000*	0.1559	8.445	0.0000*
PER	-0.0025	-6.1183	0.0000*	-0.0268	-6.4814	0.0000*
DPS _{t-1}	3.7126	38.7135	0.0000*	3.9193	42.6733	0.0000*
Gross DVPMT _{t-2}	6.6656	11.7041	0.0000*	6.7155	11.9504	0.0000*
R ²	0.8773			0.7037		
ADJ R ²	0.8772			0.7036		
D.W STATS.	2.12			2.12		
F-STATISTIC	6509.11			29200.27		
PROB (F-STATISTIC)			0.0000*			0.0000*
X ² (WALD)	154691.1		0.0000*	170827.1		0.0000*
X ² (REDUNDANT TEST ¹)	6864.006		0.0000*	-		-
HAUSMAN TEST (RANDOM TEST	-		-	-	415.26	0.0000*

Note: *, **, and *** indicate significant at 1%, 5% and 10% respectively.

Source: Computation by the Authors using E-View, Version 9.

From Table (1), Dividend Policy on Shareholders' wealth of Public Liability Companies in Nigeria from 2000-2014 using Multiple Regression analysis and adopting both the Fixed Effect and the Random Effect Models. The result of the hypothesis one which states that "Retention policy of firms is not a significant determinant of the value of Shareholders" is shown in Table (1) where Retained Earnings (Gross RE) is regressed with Market Price Per Share (MPS) proxy for Shareholders' wealth and the outcome of the Fixed Effect Model shows that Retained Earnings (RE) which is the retention policy of the Firms is found to have a positive as well as significant relationship with Market Price of Shares (MPS). This is evidenced by the positive value of 2.66 with a significant probability value of 1%, indicating that an increase in Retained Earnings undoubtedly resulted in an increase in the Market Price of Shares (MPS) and with a significant impact on Shareholders' wealth. This shows that N1 increase in Retained Earnings gives rise to N2.66 in Retained Earnings. However, if from the perspective of the Fixed Effects Model result, the positive as well as significant nature of Retained Earnings are affirmed by the coefficient value of 2.65 and the probability value of 1% as earlier stated. To be specific, the positive nature of the result means that a N1 increase in Retained Earnings will result in an increase of N2.66 in Shareholders' wealth. This means that the Retained Earnings as factor in the determination of Shareholders' wealth is a positive and significant determinant of Shareholders' wealth in Nigeria. Retained Earnings as an independent variable here becomes relevant in growth industries with viable investment opportunities which in turn increases Shareholders wealth through Dividend payments.

From the perspective of Random Effects Model however, Retained Earnings has a coefficient of 2.57 with a probability of 0.0000 equivalents to 1%, depicting a positive as well as significant nature of retained earnings. To be specific, the positive nature of the result from the Random Effects Model means that a ₦1 increase in Retained Earnings will also result in an increase of ₦2.56 in Shareholders' wealth. This means that the Retained Earnings as factor in the determination of Shareholders' wealth is a positive and significant determinant on Shareholders' wealth. The results of both Models showed that there is no significant difference between the two. Both Fixed and Random Effects Models showed the same outcome with respect to Gross Retained Earnings thus, relevant in improving Shareholders wealth.

The implication of these results is that Dividend decision of any Firm is a trade-off between Retained Earnings and financing decisions because Dividend policy of a Firm is generally a residual decision. This means that Firms with adequate investment opportunities will retain the entire earnings in order to finance all growth avenues. If on the contrary there are no growth avenues available, the alternative position is for the Firm to pay-out all available earnings hence, a relationship between return on investment (r) and the cost of capital (k) exists. Where r is greater than k , it will retain all earnings and where there is shortfall, the Firm goes for external financing requirements to finance the available investment opportunities. Based on this findings, we hereby reject the hypothesis (H_01) that states that Retention policy of Firms is not a significant determinant of the value of Shareholders.

From Table (1), Dividend per Share (DPS) as proxy for Dividend policy and one of the independent variables has been lagged in the Fixed Effect Model and regressed with Market Price per Share (MPS) proxy for Shareholders' wealth and the result revealed that DPS though lagged, has positive and joint significant impact on MPS. This is observed from the probability value of 0.0000 as well as the coefficient value of 3.71. It is significant at 1%, depicting that a ₦1 change in the lagged DPS results in an increase of ₦3.71 in MPS, thus, indicating that Dividend per Share (DPS) has a positive impact on Firms' value which ultimately influences Shareholders' wealth. It is expected that higher DPS value is an indication of Firms' robust performance which in turn, increases Shareholders' wealth in Nigeria. However, the result for all Firms is drawn from the research hypotheses which states that Dividend per Share is not a significant determinant of Shareholders' wealth is hereby rejected as revealed by our result. The Random Effects Model in respect of lagged Dividends per Share was also tested and the result also proved that there is positive as well as significant relationship with MPS. However, in comparing the level of positive relationship with MPS, the Random Effects Model showed that a ₦1 change in MPS resulted in ₦3.92 rise in the value of the wealth of Shareholders, while the Fixed Effects Model showed that the rise is ₦3.71. Dividends per Share are calculated on the Dividend declared for each year and based on the numbers of issued 50 kobo ordinary Shares as at the end of the year under review.

Table2: Results of the Regression in Respect of Hypothesis 1 (Ho1): Impact of Retention Policy on Shareholders' Wealth

Fixed Effects Model				Random Effects Model		
Variables (independent)	Coeff	T-Stat	Prob	Coeff	T-Stat	Prob
C (intercept)	2.9804	31.2541	0.0000*	2.8084	5.7248	0.0000*
RE	2.9055	25.2159	0.0000*	2.8755	25.0925	0.0000*
MPS _{t-1}	0.9287	419.1077	0.0000*	0.9375	431.2039	0.0000*
.R ²	0.8733			0.703694		
ADJ R ²	0.8732			0.703687		
D.W	2.10			2.11		
F-STATISTIC	7197.36			95566		
PROB (F-STATISTIC)			0.0000*			0.0000*
X ² (WALD)	635.84		0.0000*	192.8665		0.0000*
X ² (REDUNDANT TEST ¹)	8539.98		0.0000*			
HAUSMAN TEST (RANDOM TEST EFFECTS)	-		-		428.78	0.0000*

Note: *, **, and *** indicate significant at 1%, 5% and 10% respectively.

Source: Computation by the Authors Using E-View, Version 9.

Table (2) shows the result of the regression carried out on Hypothesis 1. Retained Earnings (Gross RE) is regressed with Market Price Per Share (MPS) as proxy for Shareholders' wealth and the outcome of the regression shows that lagged Retained Earnings (RE) which is the retention policy of the Firms is found to have a positive as well as significant relationship with Market Price of Shares (MPS) indicating that an increase in Retained Earnings undoubtedly resulted in a positive increase in the Market Price of Shares (MPS) thus, having significant impact on Shareholders' wealth. The significant nature of Retained Earnings is affirmed from the probability value of 0.0000 equivalent to 1% significant level. Specifically, the positive nature of the result means that a ₦1 increase in Retained Earnings results in a significant increase of ₦ 2.90 in Shareholders' wealth. This means that the Retained Earnings as factor in this case, is a positive and significant determinant of Shareholders' wealth. in Nigeria. From the perspective of the Random Effects Model, Retained Earnings showed a coefficient value of 2.81 with a probability value of 1%. There is no difference from the outcome of the results of both Fixed Effects and Random Effects Models in determining the impact of Gross Retained Earnings on MPS.

From Table (2), the Coefficient of Determination (**R²**) in the Model indicates that approximately 87.33% of variations in factors affecting Market Price of Shares (MPS) are explained by the Model, while the remaining 12.67% is explained by stochastic variables also known as error terms. Furthermore, the adjusted **R²** value shows that about 87.32% of variations in factors affecting Shareholders' wealth are also explained by the Model, meaning that there is no significant difference in the **R²** value and the adjusted **R²** value. The same holds when viewing the result from the perspective of the Random Effects Model. The **R²** showed a value of approximately 70.368 and an adjusted **R²** of 70.369. A Durbin Watson Statistical value of approximately 2.10 holds for both the Fixed and Random Effects Models, implying that the Model is free from problem of Autocorrelation.

The WALD test which is the Coefficient Restrictions test for hypothesis 1 as found in Table (2) shows the Fixed Effect test Model affirmed the significance nature of Coefficient of Retained Earnings. The Chi-Square (χ^2) value of 635.84 and a probability value of 0.0000 shows that Retained Earnings (RE) is a significant factor in determining Market Price of Shares (MPS). The MPS which is our dependent variable, proxy for Shareholders' wealth shows that we do not reject the null hypothesis (H_0) that states that "Retention policy of firms is not a significant determinant of the value of Shareholders' wealth." The WALD (coefficient Restriction test) was also run on Random Effects Model which also provided same result. The chi square (χ^2) of 629.63 with a probability of 1% also proved that the Retained Earnings (Gross) is a significant factor in determining the value of Shareholders' wealth.

Table3: Results of the Regression in Respect of Hypothesis (H₀2):Impact of Dividend per Share on Shareholders' Wealth

Fixed Effects model						Random Effects Model		
Variables (independent)			Coeff	T-Stat	Prob	Coeff	T-Stat	Prob
C	1.8669	15.1325	0.0000*	1.5116	3.7075		0.0002*	
MPS _{t-1}	0.9200	399.7371	0.0000*	0.9276	409.2694		0.0000*	
RE	2.7155	23.5269	0.0000*	2.6550	23.1744		0.0000*	
DPS	0.0337	22.3356	0.0000*	2.3409	27.0037		0.0000*	
.R ²					0.7129			
ADJ R ²					0.7128			
D.W					2.15			
F-STATISTIC					0.7129			
PROB (F-STATISTIC)				0.0000*	0.7128		0.0000*	
X ² (WALD)				0.0000*	729.20		0.0000*	
X ² (REDUNDANT TEST ¹)				0.0000*	-		-	
HAUSMAN TEST (RANDOM TEST EFFECTS)				-	-	409.25	0.0000*	

Note: *, **, and *** indicate significant at 1%, 5% and 10% respectively

Source: Computation by the Authors Using E-View, Version 9.

The result in Table (3) shows that the perspective of Fixed Effects Model, Dividend per Share (DPS) which is one of the independent variables is regressed with Market Price per Share (MPS) as proxy for Shareholders' wealth and the result reveals that Dividend per Share (DPS) has positive and significant impact on MPS. This is observed from the probability value of 0.0000 as well as the coefficient of 2.02. It is significant at 1% depicting that a ₦1 change in Dividend per Share (DPS) results in an increase of ₦2.02 in MPS, thus, indicating that Dividend per Share (DPS) has a strong positive impact on Firms' value which ultimately influences Shareholders' wealth. It is expected that higher Dividend per Share (DPS) value is an indication of Firms' robust performance which in turn, increases Shareholders' wealth in Nigeria. The hypothesis which states that there is no significant positive relationship between Dividends per Share on Shareholders' wealth is hereby rejected. The Random Effects Model also followed the path of the Fixed Effects Model in explaining the positive and significant nature of the impact of DPS on Shareholders' Share with coefficient value of 2.34 and probability value of 1%.

The R^2 which is the Coefficient of Determination in the Fixed Effects Model shows that about 87.46% of variations in factors affecting MPS are explained by the model. This means that our model has predictability power of about 87.46%. In other words, given the model, the behaviour of MPS can be predicted with 81% level of accuracy. The adjusted R^2 also shows that about 87.44% of variations in factors affecting Shareholders' wealth are also explained by the model, meaning that there is no significant difference in the R^2 value and the adjusted R^2 value. The adjusted R^2 value 87.44% is in essence stronger than the R^2 because the adjusted value is the actual value that has taken care of all the variations in the factors affecting MPS. From the Random Effects Model however, the Coefficient of Variation of R^2 with a probability value of 1% provided similar result.

Durbin Watson Statistical value of 2.15 as shown on the Fixed Effects Model which is the same value for the Random Effects Model implies that the model is free from problem of auto-correlation. This means that D.W. Statistical value of 2.15 indicates absence of problems of both positive and negative auto-correlation in the model thus, showing the stability of the model.

The auto-correlation table shows that Durbin Watson value of 2.5 and above reflects problem of positive auto-correlation. However, where it is below 1.5, it depicts the problem of negative auto-correlation. This is the rule of thumb approach.

Post Estimation Test (WALD Test) using the chi-square value was used in testing for the significance of a single Coefficient. This was done by imposing restrictions on the independent variable in order to test whether Dividend per Share (DPS) is a significant factor explaining the behaviour of Shareholders' wealth. Thus, the WALD Chi-Square value of 498.88 with a probability value of 0.0000 which is 1% level of significance shows that Dividend per Share (DPS) is a significant factor in determining the Market Price of Shares (MPS). However, we do not accept the null hypothesis (H_0) that states that "Dividend per Share is not a significant determinant of Shareholders' wealth". The model thereby accepts the alternative hypothesis which states that "Dividend per Share has a significant determinant of Shareholders' wealth". This outcome is not different from that of the Random Effects Model with WALD chi square value of 729.20 and a probability value of 1% level of significance. The researchers also carried out a Redundant Fixed Effects Test (RFF) in order to indicate whether all the variables that are presently included in the pooled equation are all jointly significant. By further viewing any of the effects of the test or the Statistical values in our Table (3), it showed that the Statistical value 6550.19 with a probability value of 0.0000 equivalent to 1% does not at conventional significant level lead us to reject the null hypothesis that "Dividend per Share is not a significant determinant of Shareholders' wealth". Looking at the hypothesis from the view point of alternative hypothesis, it means that the DPS is not redundant; Hausman Test (Random Effects) revealed that it is both positive and significant hence, we accept the Fixed Effect Model.

Discussion of Results and Findings

Several theories have been adduced to tackling the controversial theories of Dividend policy among which are the Relevance and the Irrelevance Theories of Dividend. The Relevance Theory seems to be more preferred among Managers of Companies, existing Shareholders, potential investors as well as market analysts (Pandey, 2000). Miller and Modigliani (1961) argue that in a given perfect Capital Markets, the Dividend decisions do not affect Firm's value and is, therefore, irrelevant. However, most financial and Capitalization experts do not believe in their theory. Retained earnings, as well Dividend per Share have been found to be the major variables in determining the wealth of Shareholders regarding their positive and 1% significant levels in both hypothesis 1 and 2 meaning that the variables are strong factors in determining the maximization

of Shareholders' wealth thus, negating Modigliani and Miller paradigm (1961) which argue that given perfect Capital Markets, the Dividend decision does not affect Firm's value and is, therefore, irrelevant.

Most financial and Capitalization experts do not believe in their Hypothesis. This is because in a real-world full of market imperfections such as taxes, transaction costs as well as other factors like asymmetric information and agency costs, Dividend policy becomes very relevant for Managers of Companies, existing Shareholders, potential investors as well as market analysts. While it is a fact that Managers of Firms show great concern on the Dividend pay-out policy of their Firms, the markets equally react to Dividend changes, Dividend omissions, and initiations.

The first hypothesis was tested for all the 76 firms in which retained earnings was regressed with MPS and has positive as well as a significant impact. Though, retention policy of firms is a trade-off with Dividend distribution; the higher the Retained Earnings, the less the Dividend distributed to Shareholders of quoted firms. The positive nature of Retained Earnings on Market Price of Shares showed that an increase in Retained Earnings undoubtedly resulted in an increase in the Market Price of Shares and significant at 1% level. It showed that a N1.00 increase in Retained Earnings resulted in an increase of N 2.90 in Shareholders' value. Dividend per Share (DPS) was regressed with Market Price of Shares and showed that DPS has positive as well as a significant impact on MPS for all the 76 Firms on the Nigerian Stock Exchange from 2000-2014. This showed that higher DPS value is an indication of Firms' robust performance which in turn, increases Shareholder wealth.

The most facilitating outcome of this research work is that both independent variables rejected the null hypothesis in the model, while accepting the alternative hypotheses. For instance, the coefficient of Determination (R^2) for the independent variables provided over 87% of variations in factors affecting Shareholders' wealth are explained by the Model.

Conclusions and Recommendations

Based on our findings, the following conclusions are drawn

The indifference of Shareholders as shown in the work of Modigliani and Miller theory simply shows that the value of the Firm is not determined by its Dividend policy. This has not been accepted in the Nigerian investment atmosphere. The indigenous business environment prefers Dividend Relevance Theories that are generally of the view that Dividend decision is an active variable that determines the value of the Firm.

The relationship between Dividend policy and the value of the Firm has been tested in most of the empirical studies. Ben-Naccour and Geoaid (1999), opine that a profitable Company that distributes Dividends shows signals of quality management leading to value creation. This was confirmed in an empirical study carried out by Chikwendu (2008) on Value Creation in Publicly Quoted Banks in Nigeria. The study found out that Dividend policy is a crucial determinant of the value of a Firm. Furthermore, the M & M Dividend Irrelevant Theory is associated with a number of vital assumptions which include the absence of taxes as well as brokerage costs. These costs in reality do occur, so that investors who want additional Dividends must incur brokerage costs to sell Shares and must pay taxes on any capital gains. Dividend policy may well be relevant because investors who do not want Dividends must incur brokerage costs to purchase Shares with their Dividends simply because the Market is not perfect.

Based on the findings, the following recommendations are hereby provided. With regards to Modigliani and Miller Dividend Irrelevance Policy, three Firms namely, growing, normal and

declining Firms are relevant in our recommendations since the Irrelevance Theory objects to Dividend payments but subscribes to Capital Gains.

The growth Firm (k) means Firms having $r > k$ thus can reinvest Retained Earnings at a rate which is higher than the rate expected by the Shareholders. These Firms will maximize the value per Share if they follow a policy of retaining all earnings for internal investment. The growth firm can conveniently match the M-M Irrelevance paradigm and recommended as such.

For the normal Firm, most of the Firms do not have unlimited investment opportunities with $r = k$ and having exhausted much investment opportunities, these Firms would earn on their investments rate of return equal to the cost of Capital, $r = k$. Thus, for the normal Firms with $r = k$, the Dividend policy has no effect on the market value of Shares. In Walter's Model, it can be noticed that the market value per Share for normal Firms is the same for Dividend payout ratios when $r = k$. Firms in this category can also adopt M-M Irrelevance Theory and will be advised to reinvest Capital Gain.

Finally, for the declining Firms $r < k$, it is highly recommended to go with the Relevance Theory of Dividend found in the works of Brittain (1954), Gordon (1959, 1962), Lintner (1956, 1959, 1962), and Walters (1963). Many of the firms do not have profitable investment opportunities to invest the earnings and such Firms would earn on their investments, rates of return less than the minimum rate required by investors. Investors of such Firms would either spend it or alternatively invest elsewhere to get a rate higher than earned by the declining Firms. The Market Value per Share of declining Firms with $r < k$ will be maximum when it does not retain earnings at all. It can be observed that, when the declining Firms' payout ratio is 100%, (i.e. Retained Earnings), the Market Value per Share increases as payout ratio increases when $r < k$. In Walter's Model, however, the Dividend policy of the Firm is dependent on the availability of investment opportunities and its relationship between the Firm's Internal Rate of Return ' r ' compared to its cost of capital, ' k '. The Firm is expected to use earnings to finance investment if $r > k$; distribute all earnings when $r < k$ and be indifferent when $r = k$. Thus, Dividend policy is a financing decision. When Dividend policy is treated as a financing decision, the payment of cash Dividends becomes a passive residual (Walter, 1963).

In reality, none of the assumptions of M & M hold true because taxes are certain as long as Companies need to deal with floatation costs and information is readily available to every investor. M & M believes that it is only the Company's ability to earn money and how risky it is that has an impact on the Share value of Firms. M&M's conclusions might be true theoretically but do not stand the test of time.

Finally, Shareholders have the ability to make home-made dividends. To MM's dividend-irrelevance theory, investors can affect their return on a stock regardless of the stock's dividend, i.e. shareholders, in theory, can construct their own (home-made) dividend policy, and substitute it for the corporate dividends. For example, if, from an investor's perspective, a company's dividend is too small, the investor can sell some of the company's stock to replicate the cash flow expected. On the other hand, if a firm pays a higher dividend than an investor desires, the investor can use the dividends to buy additional shares of the company's stock. Where there is the possibility for the investors to buy and sell shares and also create their own dividend policy without incurring additional costs, then the firm's dividend policy would actually be irrelevant to investors, who do not care much about a company's dividend policy since they can simulate their own. The firm finds it difficult to create value just by altering the mix of retained earnings and dividends.

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