

THE EFFECT OF DIVIDEND POLICY ON THE MARKET PRICE OF SHARES IN NIGERIA: CASE STUDY OF FIFTEEN QUOTED COMPANIES

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ABSTRACT

The issue of how much a company should pay its stockholders, as dividend is one that has been of concern to managers for a long time. The optimal dividend policy of a firm may be defined as the best dividend pay out ratio the firm can adopt. But, what does “best” mean in this concept? Since the objective of the firm is to increase the wealth of its stockholders, the best dividend policy is the one that increases shareholders wealth by the greatest amount. It is therefore necessary, to understand the nature of the relationship between dividend and value of the firm. It is in the light of this that the study examines the possible effects of a firm’s dividend policy on the market price of its common stock. In so doing, the methodology adopted was Person’s Product Movement Correlation to evaluate the data collected from the fifteen studied companies. The study revealed among other things that, both internal and external factors affect dividend policy and hence a holistic approach to dividend policy becomes inevitable if a generally acceptable decision is to be taken. On this note the study recommended inter alias that policy makers should be well versed in the knowledge of those interactive forces within their environment which must be considered in order to arrive at a sustainable dividend policy for the generality of the interested parties.

Introduction

The optimal dividend policy of a firm depends on investor’s desire for capital gains as opposed to income, their willingness to forgo dividend now for future returns, and their perception of the risk associated with postponement of returns.

However any normative approach to dividend policy intended to be operative under real world conditions should consider the firms investment opportunities, any preferences that investors have for dividends as opposed to capital gains and vice versa, and difference in “cost” between retained earnings and new equity issues.

Various firms adopt dividend policies depending on the company’s articles of association and the prevailing economic situation. Some make high pay out, while others make low pay out and yet others pay stock dividends (bonus issue) in lieu of or in addition to cash dividend while others pay cash only. All in a bid to maximize shareholders wealth which, in this case, is the market value of the firm’s common stock.

Modigliani and Miller (1961) demonstrated the irrelevance of dividend policy under a set of assumption, that is, dividend policy has no effect on stock prices. But when these assumptions are relaxed, the theory begins to collapse. This raises the question does dividend policy have any effect on the value of firms in Nigeria? If yes, to what extent?

Objective of Study

The objective of this study is to critically examine the possible effects that a firm's dividend policy might have on the market price of its common stock and also, those factors that influence firm's dividend policy in general.

It further attempts at identifying other factors that influence share price behaviour of quoted companies in Nigeria, and finally identifies the most commonly practiced dividend policy in Nigeria.

Theoretical Framework

Pandy (1979) defines dividend as that portion of a company's net earnings which the directors recommend to be distributed to shareholders in proportion to their share holdings in the company. It is usually expressed as a percentage of nominal value of the company's ordinary share capital or as a fixed amount per share.

Dividends are usually paid out of the current year's profit and sometimes out of general reserves. They are normally paid in cash, and this form of dividend payment is known as cash dividend. Another option available to a company for the distribution of earnings is by stock dividend (bonus issue) which is supplementary to cash dividend. When cash dividend is paid to shareholders, it has an adverse effect on the liquidity position and the reserves of the firm as it tends to reduce both of them (cash and reserves). Unlike cash dividend, stock dividend does not affect the total net worth of the firm, as it is a capitalization of owners' equity portion.

Furthermore, according to section 370 sub-section (1) of CAMA, a company may in the annual general meeting, declare dividend only on the recommendation of the Directors. The Company may from time to time pay to the members such interim dividends as appear to the directors to be justified by the profits of the company. According to sub-section (3), the general meetings shall have power to decrease the amount of dividend recommended by the directors, but shall have no power to increase the amount recommended. While sub-section (5) stated that, subject to the provisions of these act, dividend shall be payable only out of the distributable profit of the company.

Furthermore, section 381 of CAMA states that a company shall not declare or pay dividends if there are reasonable grounds for believing the company is or would be, after the payment, unable to meet up with or pay its liabilities as they become due.

According to Van Home (1971) dividend policy entails the division of earnings between shareholders and reinvestment in the firm. Retained earnings are a significant source of funds for financing corporate growth, but dividend constitutes the cash flows that accrue to shareholders. There exist two divergent schools of thought with regards to these, the dividend policy and the retained earning policy.

Dividend policy suggests a positive attitude for, it is a deliberate policy to maintain or increase dividend at a certain level with the ultimate aim of sustaining the price of the ordinary shares on the stock exchange. This is because capital markets are not perfect, although shareholders are indifferent between dividend and retained earnings due to market imperfections and uncertainty, but they give a higher value to the current year dividend than the future dividend and capital gains. Thus the payment of dividend has a strong influence on the market price of the shares. Management might maintain a dividend level even at the expense of liquidity or forced into borrowing to do so. With this approach it holds that dividends, on the other hand, are desirable from the shareholders point of view, as increasing their current wealth and consequently dividend level determines share price as well as indicates the prospect of profitability of the firm.

On the other hand, profit retention policy tends to suggest a more passive residual attitude towards dividend, that is, a passive attitude towards retention. Dividend pay out

reduces the amount of earnings to be retained in the firm and affect the total amount of internal financing. When dividends are treated as a financing decision, the net earning of the firm may be viewed as a significant source of financing the growth of the firm. Dividends paid to shareholders represent a distribution of earnings that cannot be profitably reinvested by the firm. The approach to dividend is viewed merely as a residual decision. This theory is known as the residual theory of dividend and was first proposed by Miller and Modigliani in 1961. Investor prefer to have the firm retain and reinvest earnings rather than pay them out in dividend if the return on the investment earnings exceeds the rate of return the investors could themselves obtain on other comparative investment. Otherwise, the investors prefer dividend.

Relevance of Dividend

Another school of thought holds that without Modigliani and Miller's restrictive assumptions, their argument collapses. They asserted that since, in reality investors operate in a world of brokerage fees, taxes, and uncertainty, it is better to view the firm in the light of these factors. The leading proponent of the relevance of dividend theory, Gordon (1962) suggests that shareholders do have a preference for current dividends, that, in fact there is direct relationship between the dividend policy of a firm and its market value. Gordon argues that investors are generally risk-averse and attach less risk to current as opposed to future dividends or capital gains. This 'birds r' hand" argument suggest that a firm's dividend policy is relevant since investors prefer some dividend now in order to reduce their uncertainty. When investors are uncertain about their returns they discount the firm's future earnings at a lower rate therefore placing a higher value on the firm.

Another writer, Walter (1963) was of the opinion that dividend policies in most cases do affect the value of the firm. The effect of the optimum dividend policy on the relationship between the firm's internal rate of return (r) and its cost of capital (k) according to him, is a growth function of the firm where $r > k$, all earnings can be reinvested, hence, the firm is assumed to have sample profitable opportunities so as to maximize the value per share over and above the rate expected by shareholders. In a normal firm where $r = k$, dividend policy have no effect on the market value per share since the rate of return is equal to the cost of capital. In a declining firm where the optimum payout ratio should be 100% to enable increase in the market value per share, Walter expressed this as thus:

$$P = \frac{E}{k - dr}$$

Where

P	=	Market value of the share
E	=	Earnings per share
K	=	Cost of capital
r	=	Internal rate of return
d	=	Current dividend

This Walter theory has been criticized because r and k are not constant in real life situation. Moreover, the non-existence of external financing makes it weak. The firm's r decreases as more investment occurs and k changes directly with the firm's risk. It should be understood here that Walter's model though weak, recognizes the fact that dividend policy is relevant, according to Samuels and Wilkes (1975).

The owners of a company share are entitled to a revenue stream of dividends. The value of the share corresponds to the present value of this stream of dividends payments. Obviously, there is considerable uncertainty surrounding the size of the future dividends, indeed it is as a result of change expectations about future dividends that share prices fluctuate. The owner considers his returns as accruing not just from dividend payments but from the additional gains resulting from any capital appreciation on the share. Normally he does not intend to hold the share in perpetuity, he wishes to sell the share and obtain capital

gains, but when he sells the share, the buyer is also simply purchasing a stream of future dividend expectations. The reason the capital gain expectation arises is because of expectation about future dividend stream rise between the time when the investor purchases the shares and when he sells them.

This theory can be demonstrated. Suppose an investor buys a share expecting to hold it for two years: The value of the share to him is the present value of the two years dividend payment, plus the discounted value of the price he expect to receive on selling the share.

$$\begin{aligned} \text{If } P_0 &= \text{Price of share today} \\ P_2 &= \text{Price of share at the end of the 2nd year} \\ D_1 &= \text{Dividend per share to be received at the end of 1st year} \\ 1 &= \text{Discount rate, and} \\ D_2 &= \text{Dividend at the end of the 2nd year, then} \\ P_0 &= \frac{D_1}{(1+i)} + \frac{D_2}{(1+i)^2} + \frac{P_2}{(1+i)^2} \end{aligned}$$

The investor who buys the share at the end of the 2nd year pays P_2 for it and expects to hold it for two further years, so, looked at from time 0 will give

$$\frac{P_2}{(1+i)^2} + \frac{D_3}{(1+i)^3} + \frac{D_4}{(1+i)^4} + \frac{P_4}{(1+i)^4}$$

Rewritten as

$$P_0 = \sum D_t / (1+i)^t$$

The theory demonstrated above is in line with Graham, Dodd and Cottle's statement that "the predominant rate dividend has found full reflection is a generally accepted theory of investment value which states that a common stock is worth the sum of the entire dividend to be paid on it in the future, each discounted to its present worth".

Methodology

This study fundamentally falls under the ex post factor design type because there is no experiment involved, but rather is designed to test an event that has already taken place. Therefore it deals with historical facts about dividend policy and its effects on the value of Nigerian firms.

The primary data were collected through personal interviews with a stockbroker, bankers and the members of staff of the Nigerian stock exchange, Kaduna branch. This was to enable a thorough complementary presentation with the secondary data since; the data used in this study is mainly secondary data being document analysis and reappraisal.

The data machinery adopted for this study is the published accounts of selected firm for the relevant years sampled for analysis. This enabled the collection of the common stock price list of the selected firms, obtained from the Nigerian stock exchange Kaduna branch. Samples of fifteen quoted companies were selected. The basis of selecting these companies was to ensure that all industries are covered but as the study progressed, it became obvious that the data to cover the ten year period was not available in the required quantity so, what could be got was used. The study covers a period of 10 (ten) years spanning 1990 to 1999.

Method of Data Analysis

For the analysis, Person's Product Moment Correlation was used. It is an index that describes the direction and strength of linear relationship between two measurements, x and y in a collection of data according to Harry and Steven (1994). In this case the two measurements are dividend percentages, declared, by selected firm during the study period and the corresponding stock prices.

The computation of the correlation coefficient was done for each of the fifteen companies and the average computed from the individual results.

The Person's Product Moment Correlation is mathematically defined as:

$$r_{xy} = \frac{\sum (x-x)(y-y)}{N s_x s_y}$$

or

$$r_{xy} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2 - (N \sum y^2 - (\sum y)^2)}}$$

Where

r_{xy} = Correlation of x and y
 N = Number of items or measurement
 X = First measurement
 Y = Second measurement

Other statistical techniques such as mean ($\bar{x}$) and standard deviation are also used to estimate the average percentage of after tax profit declared as dividend and to measure the dispersion of the data respectively.

Data Presentation and Analysis

The data presented in this study were mainly extracts from the annual report of the fifteen selected companies and their share prices obtained from the Nigeria stock exchange.

The Selected companies are:

(1) Berger Paints Plc	(6) NTC Plc	(11) Briscoe Nig Plc
(2) Incar Nig. Plc	(7) Cadbury Nig Plc	(12) Premier Paints Nig. Plc.
(3) Thomas Wyatt Nig. Plc	(8) SmithKling Beechan Nig PLc.	(13) CAP Plc
(4) AT&T Nig. Plc	(9) Texaco Nig. Plc	(14) IPWA Plc
(5) NBC Plc	(10) Dunlop Nig. Plc	(15) Habib Nigerian Bank Limited

A distribution is a set that may have been generated from one or more related source. It is often necessary to describe the distribution, or describe the profiles condensing the data into a single figure, which helps us know what is typical about the distribution! This requires the calculating of the Central Tendency for the data in the distribution. The mean ($\bar{x}$) was used in this case. Also it is necessary to know the dispersion of the values in the distribution, which is measured by the Standard Deviation.

The result of Standard Deviation is in the same unit as the data being measured.

Table I shows the distribution of dividends expressed as a percentage of earnings among the 150 total accounting periods of the fifteen companies.

TABLE I: DISTRIBUTION OF DIVIDENDS (D) AS A PERCENTAGE OF EARNINGS (E) AMONG 150 TOTAL ACCOUNTING PERIODS COVERED BY THE FIFTEEN COMPANIES WITHIN THE TEN YEARS STUDIED

D/E%	Frequency	Class Mark (x)	(Fx)	X ²
0-19	37	9.5	351.5	90.25
20-39	30	29.5	885	870.25
40-59	39	49.5	1930.5	2450.25
60-79	27	69.5	1976.5	4830.55
80-99	8	89.5	716	8010.25
100-119	6	109.5	657	1190.25
120-139	0	129.5	0	16770.25
140-159	2	149.5	299	22350.25
160-179	0	169.5	0	18730.25
180-199	0	189.5	0	33910.25
260-219	0	200.0	0	43890.25
220-239	1	229.5	2295	52670.25
Σ	150	1.434	7,115	228563

Source: computations from Published Accounts

$$\text{MeanX} = \frac{\sum Fx}{\sum f} = \frac{7115}{150} = 47.43$$

$$\text{Standard deviation} = \sqrt{\frac{\sum X^2 - \frac{(\sum fx)^2}{\sum f}}{\sum f - 1}} = \sqrt{\frac{228563 - \frac{1434^2}{150}}{150 - 1}} = 38$$

The table shows in the first column that the percentages, shown in class intervals of twenty 20) range between the extremes of 0 and 239. The second column shows the frequency distribution of the percentages among the 150 accounting periods. By this, the frequency of 37 ascribed to DIE of 0-19% indicated that in 37 (i.e 24.7%) out of 150 accounting periods, the Dividend as a proportion of Earnings fell between 0-19%. While in 39 out of the total accounting representing 26% of the total periods, dividend pay-out was between 40 to 49% of earnings. It also shows that in 30 of the 150 accounting periods, representing 20% of the total periods, dividend payout was between 20% to 39% of earnings while in 27 out of the 150 accounting periods, representing 18% of the total periods dividend payout was between 60% to 79% of earnings. The highest three frequencies represent 70.7% of the total periods while the highest four explained above together represent 88.7% of the total periods. The most frequent payout fell between 40% to 59% of earnings. It is therefore not surprising that the computed mean of the distribution is 47.43% with a standard deviation of 38%

This indicates that Nigerian firms payout an average of 47.43% of their net earnings as dividend with dispersion from this figure of 38%. This large dispersion makes the average weak because, it indicates that larger error will occur if the average is used for prediction.

Correlation Analysis

For this analysis, Pearson's Product Moment Correlation was used as earlier on presented and explained in this study.

In correlation, whatever the units in which x and y are measured, a positive value indicates that x and y are positively related, that is y increased proportionately as x increases, and the closer the r-value is to +1 the more significant the relation. A negative r-value indicates a negative statistical relation, that is y decreases as x increases and the closer the value is to -1 the more significant the relationship. The formula automatically produces the correct sign for the coefficient.

Table II: SUMMARY OF CORRELATION COEFFICIENT OF DIVIDENDS AND SHARE PRICE LATITUDINAL OF STUDY SAMPLE

S/No	FIRM	CORRELATION COEFFICIENT (Rxy)	REMARK
1	Berger paint	-0.50	Significant
2	Incar Nigeria PLC	0.63	Significant
3	Thomas Wyatt Nig. PLC	-0.22	Insignificant
4	AT & T. Nig. PLC	0.75	Significant
5	N.B.C. PLC	0.60	Significant
6	N.T.C. PLC	0.05	Insignificant
7	Cadbury Nig. PLC	0.45	Insignificant
8	SmithKline Beechaman Nig. PLC	-0.22	Insignificant
9	Texaco Nig. PL	0.28	Insignificant
10	Dunlop Nig. PLC	0.48	Insignificant
11	Brisoc Nig. PLC	0.09	Insignificant
12	Premier paints PLC	0.47	Insignificant
13	XAP PLC	0.08	Insignificant
14	IPWA PLC	0.35	Insignificant
15	Habib Bank Nig. Ltd.	0.36	Insignificant

Source: Computations from Published Accounts.

In table II only four firms out of the fourteen firm show a significant relation between dividends and share prices (Latitudinal) that is Berger Paints with coefficient of -0.5, Incar Nig. PLC with 0.63, AT & T Nig PLC with 0.70 and NBC PLC with a correlation of 0.60. The remaining eleven firms all show insignificant relationship between dividend and share prices that is, less than 0.5.

Table III: SUMMARY OF CORRELATION COEFFICIENT OF DIVIDENDS AND SHARE PRICES (LONGITUDINALLY OF STUDY SAMPLE)

YEAR	CORRELATION COEFFICIENT ($R_{Y^{xy}}$)	REMARK
1990	0.40	Insignificant
1991	0.83	Insignificant
1992	-0.04	Insignificant
1993	0.02	Insignificant
1994	0.12	Insignificant
1995	-0.05	Insignificant
1996	0.10	Insignificant
1997	0.45	Insignificant

1998	0.23	Insignificant
1999	0.18	Insignificant

Source: computations from Published Accounts

Table III shows the summary of longitudinal computation of correlation coefficient of dividends and share prices, that is, by years of the study period. Only 1991 show a significant relation between dividends and share prices with coefficient of 0.83, the remaining nine years show an insignificant relation between dividends and share prices with coefficient of less than 0.50 or more than -0.50 the size of these coefficient of correlation indicate that there is virtually no relation between dividends and share prices.

Table IV: SUMMARY OF CORRELATION COEFFICIENT OF NET PROFITS AND SHARE PRICE

S/No	FIRM	CORRELATION COEFFICIENT (Rxy)	REMARK
1	Berger paint	0.43	Insignificant
2	Incer Nigeria PLC	0.13	Insignificant
3	Thomas Wyatt Nig. PLC	0.24	Insignificant
4	AT & T Nig. PLC	0.37	Insignificant
5	N.B.C. PLC	-0.24	Insignificant
6	N.T.C. PLC	-0.50	Insignificant
7	Cadbury Nig. PLC	0.22	Insignificant
8	SmithKline Beechaman Nig. PLC	-0.03	Insignificant
9	Texaco Nig. PL	-0.42	Insignificant
10	Dunlop Nig. PLC	0.88	Insignificant
11	Brisoc Nig. PLC	-0.55	Insignificant
12	Premier paints PLC	0.46	Insignificant
13	XAP PLC	0.10	Insignificant
14	IPWA PLC	0.89	Insignificant
15	Habib Bank Nig. Ltd.	0.28	Insignificant

Source: Computations from published Accounts

Table IV shows the summary of the computation of correlation coefficient of net profits and share prices of the fifteen firms computed, only four firms show a significant relation between net profits and share prices, that is, NTC PLC with coefficient -0.50, Dunlop Nig PLC with 0.88, Bricoe Nig PLC with -0.55 and IPWA PLC with a coefficient of 0.89 the remaining eleven firms show insignificant relation between net profits and share prices with coefficient of less than 0.5 or more than -0.5

From the above correlation analysis it can be said generally that there is no significant relation between dividends and share prices. Also there is no significant relationship between net profits and share prices though the Securities and Exchange Commission (SEC) supposedly use the earnings method in fixing share prices, the lack of correlation could be as a result of the following reason:

- i) The Securities and Exchange Commission combines both the assets method and the earnings method to arrive at the share price for a firm.
- ii) In both methods, many items such as intangible assets for the assets method and P/E ratio of similar firms in the same industry for the earnings method are used for

adjustments before computing the share price, but these items are not disclosed in the annual reports of the companies which form the basis of information for this study.

Summary and Conclusion

This study is able to establish that dividends payment is more of attractive bait for stimulating investment in Nigeria. For it is unusual for the rejection of dividend declaration in favour of capital gains by share holders and neither would they advocate a reduction in the level of dividends declared for any other reason for that matter.

As for the significance of dividend policy, it all boils down to the question of relevance, though the researcher is of the opinion that dividend o matter to the average Nigerian investor or potential investor as such, the development of policy on dividends by companies is nonetheless important.

The study revealed that dividends affect the demand for share price and subsequently the value of the firms. However, the dividend policy per se do no affect the value of firms currently as share price fixing in regulated by the Security and Exchange Commission (S.E.C) in respect of the quoted companies.

Other conclusion from this study includes:

- * So many factors both internal and external to a firm have to be considered when formulating the dividend policy.
- * Most Nigerians buy and own shares for prestigious reasons aimed at boosting their egos and not for speculative reason. Another reason for share ownership in Nigeria is the fact that, share is an acceptable security in obtaining credit facility such as Bank loan.
- * Share prices or Nigerian firms are fixed and regulated by the Securities and Exchange Commission (SEC) for quoted companies only.
- * Nigerian firms do have a dividend policy that is dependent on earnings. However, the trend is not very consistent and proportionate. From the earnings and dividends over time it can be said that the size of dividend is dependent on the amount earnings as, earnings and dividend follow the same trend.
- * There is no correlation between dividend payment and share prices of Nigerian firms. There is also no correlation between net earnings and share prices. This may however be due to none availability of items which are not disclosed in the annual reports of companies but which are needed for adjustment in computing share prices when computing the earnings.
- * Some Nigerian firms try to pay dividends at all cost, regardless of the level of profit recorded. This is mainly for psychological reasons on the part of the current and potential investors.

In conclusion, the study was able to establish the reasons why dividend are important to the Nigerian investors even though the policy may not after all affect the share price and consequently the value of the firm. It is in this light that the following recommendations are being made:

- * Nigerian firms should consider all the factors that affect dividend policy when formulating one, in order to have an optimal policy that satisfies its shareholders and other interested third party.
- * Nigerian firms should endeavour to practice a regular dividend policy so that prospective investor could know before hand whether or not a firm's dividend policy tallies with their own expectation (client effect)
- * Though there is an increase in the level of awareness of the public on corporate investment as a result of discussions about privatization and commercialization of government parastatals on television and the public media, shares of Nigerian firms

are to a great extent concentrated in the hands of a few wealthy Nigerians. To improve on this the government should embark on enlightenment campaign to increase the level of awareness of the populace so that more people can invest in profitable ventures for the overall growth of the economy.

- * Banks should be made to grant loans to people to enable them buy shares and the lending terms should be relaxed to enable Nigerians take advantage of the ongoing privatization and commercialization of government parastatals and companies.

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