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The effect of dividend policies on wealth maximization – a study of some selected plcs

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Abstract: This research article examines how share value thus shareholders wealth is affected by dividend policies. This study seeks to analyze the effect of firm's dividend policies on shareholders' value of public companies in Nigeria, to empirically examine the linkage of dividend payout with information asymmetry, and to analyze the effect of various dividend policies on shareholders wealth. This study is based on survey design covers a one-year period with a sample of 10 quoted companies in the Nigeria stock exchange. In so doing, the methodology adopted is the Anova. This study shows the relevance of dividend and further proves that dividend policies of public limited companies influence the wealth of shareholders in Nigeria.

Subjects: Arts & Humanities; Science; Social Sciences

Keywords: shareholders wealth; dividend policy; dividend per share; earnings per share; market price per share

1. Introduction

Dividends can be defined as the distribution of earnings (past or present) in real assets among the shareholders of a firm in proportion to their ownership (Kapoor, 2009). Dividend can be managed or a passive residual. In a managed dividend policy, managers tend to smoothen dividend by fixing dividend payment at a certain level of earnings and investment while in the residual, dividend are paid only after possible investment portfolios are made. In this case, dividend will tend to be highly variable and often zero. Dividends are often unpredictable in the residual policy than in the managed

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C.N. Ozuomba is from the eastern part of Nigeria. Ozuomba specializes in financial accounting. Ozuomba holds a Bachelor of Science (BSc) degree from Anambra state University, Uli, Anambra State. Ozuomba also holds a Master of Science degree from Nnamdi Azikiwe University Awka, Anambra State, Nigeria. Ozuomba is currently pursuing a Doctor of Philosophy (PhD) degree at Anambra State University, Igbariam Campus, Nigeria. Ozuomba has conducted research in areas like dividend policies on shareholders wealth, internal control on performance in the public sector, Forensic accounting relevance in the face of increasing fraudulent activities in Nigeria. This research work the effect of dividend policies on wealth maximization—A study of some selected public limited companies, will enable investors identify that dividend policy that will best maximize their wealth.

PUBLIC INTEREST STATEMENT

The primary justification of this study is that, it will help to fill the gap in the existing literature as very few studies have analyzed dividend policy on shareholders wealth in Nigeria. This study will also, empirically examine the shareholders wealth maximization impact of management disbursement choices, thereby supplementing and extending current research in this area. It will help finance manager in deciding what dividend payment pattern will be for developing countries like Nigeria. Investors will be able to tell what effect company dividend policy has on their wealth maximization. This study will help tax officers in assessing companies and shareholders and to ascertain if dividends are declared correctly. This research work will also help in encouraging new and potential investors to invest in shares, having understood what effect dividend policy will have on its share value.

policy where dividend grows in even increments in years to come. The effect of dividend policy on shareholders wealth is important to management, investors who plan their portfolios. Some scholars like Miller and Modigliani, Arunprakash and Nandhini, believe that dividend policies are irrelevant in determining the wealth of shareholders while others like Lintner and Gordon, argue that dividend policies are relevant and greatly influence the wealth of shareholders (Arunprakash & Nandhini, 2013; Lintner & Gordon, 1956; Miller & Modigliani, 1961). These two scholars Miller and Modigliani have contributed greatly to the ongoing debate on dividend policy effect on shareholders wealth. Investors, academicians and even managers have questioned the value added to a carefully chosen dividend policy and if there is any policy that can be generally accepted to all (Lease, Kose, Avner, Uri, & Oded, 2000). The general purpose of this study is to analyze through an empirical study firm's dividend policies and the effect, if any, they have on shareholder's value. The specific objectives are: (i) To analyze the effect of firm's dividend policies on shareholders' value of public companies in Nigeria. (ii) To empirically examine the linkage of dividend payout with information asymmetry. (iii) To empirically examine the determinants of dividend payout by firms and find out its linkage with information content of dividends.

1.1. Hypotheses

H_0 there is no effect of firm's dividend policies on shareholders' value of public companies in Nigeria.
 H_1 there is an effect of firm's dividend policies on shareholders' value of public companies in Nigeria.
 H_0 : agency cost between shareholders and management does not affect the dividend payment pattern of firms.

H_2 : agency cost between shareholders and management affects the dividend payment pattern of firms. H_0 information content of dividend does not affect dividend payout by firms. H_3 information content of dividend affects dividend payout by firms.

2. Theoretical framework

2.1. Residual theory of dividend policy

The essence of the residual theory of dividend policy is that the firm will only pay dividends from residual earnings, that is, from earnings left over after all suitable (positive NPV) investment opportunities have been financed. Retained earnings are the most important source for financing for most companies (Baker, Powell, & Veit, 2002). A residual approach to the dividend policy, as the first claim on retained earnings will be the financing of the investment projects. With the residual dividend policy, the primary focus of the firm's management is indeed on investment, not dividends. Dividend policy becomes irrelevant, it is treated as a passive rather than an active, decision variables. According to Baker et al. (2002), the view of management in this case is that the value of firm and the wealth of its shareholders will be maximized by investing the earnings in the appropriate investment projects, rather than paying them out as dividends to shareholders. Thus managers will actively seek out, and invest the firm's earnings in, all acceptable (in terms of risk and return) investment projects, which are expected to increase the value of the firm. Dividends will only be paid when retained earnings exceed the funds required to finance the suitable investment projects. Conversely when the total investment funds required exceed retained earnings, no dividend will be paid.

2.2. Motive for a residual policy

The motives for a residual policy, or high retentions, dividend policy commonly include:

- (1) A high retention policy reduces the need to raise fresh capital, (debt or equity), thus saving on associated issues and floatation costs.
- (2) A fresh equity issue may dilute existing ownership control. This may be avoided, if retentions are consistently high.
- (3) A high retention policy may enable a company to finance a more rapid and higher rate of growth.

When the effective rate of tax on dividend income is higher than the tax on capital gains, some shareholders, because of their personal tax positions, may prefer a high retention/low payout policy (Baker et al., 2002).

2.3. The dividend irrelevance theory

The dividend irrelevance theory by Miller and Modigliani (1961) is based on the premise that a firm's dividend policy is independent of the value of the share price and that the dividend decision is a passive residual. They are of the view that the value of the firm is determined by its investment and financing decision within an optimal capital structure, and not by its dividend decision. A common dividend policy should be able to serve all firms because the dividend policy is irrelevant in determining firm value.

The residual concept of dividends is based on the decision of dividing surplus earnings between future investments and the payment of dividends. Thus, a firm can either retain all of its surplus earnings for investment in future positive NPV projects or distribute dividends from the residue of the surplus earnings after providing for positive NPV investments, the firm is not obliged to pay dividends. In this manner, dividends are seen as a passive residual and are irrelevant in affecting firm's value. Alternatively, shareholders are indifferent as to whether they receive the expected return on their investment in the form of dividends or in the form of an appreciation of share value.

The basic premise of their argument is that firm value is determined by choosing optimal investments. The net payout is the difference between earnings and investments, and simply a residual. Because the net payout comprises dividends and share repurchases, a firm can adjust its dividends to any level with an offsetting change in share outstanding. From the perspective of investors, dividend policy is irrelevant, because any desired stream of payments can be replicated by appropriate purchases and sales of equity. Thus, investors will not pay a premium for any particular dividend policy.

Miller and Modigliani (1961) concluded that given firms optimal investment policy, the firm's choice of dividend policy has no impact on shareholders wealth. In other words, all dividend policies are equivalent. The most important insight of Miller and Modigliani's analysis is that it identifies the situation in which dividend policy can affect the firm value. It could matter not because dividends are "safer" than capital gains, as was traditionally argued, but because one of the assumptions underlying the result is violated. The propositions rest on the following four assumptions:

- (1) Information is costless and available to everyone equally.
- (2) No distorting taxes exist.
- (3) Flotation and transportation costs are non-existent.
- (4) None contracting or agency cost exists.

According to Emenuga as cited in Nwachukwu (2007), Miller and Modigliani developed their theory in a perfect capital market setting. The basic assumptions underlying this theory are;

- (1) In a perfect capital market, no buyer, seller or issuer of securities is large enough for their transactions to significantly affect the current ruling price.
- (2) That information regarding the ruling price is available to all without cost, and no brokerage fees, transfer taxes or other transaction costs are incurred in the trading of securities.
- (3) That no tax differentials exist between dividends and capital gains.
- (4) That all investors will behave rationally in that they will prefer more wealth to less, and they are indifferent as to whether any given increment of their wealth is in the form of cash payments or an increase in the market value of their holdings.
- (5) That perfect certainty carries the implication of complete assurance on the part of every investor as to the future investment program and future profits of every company.

M & M argue that the sum of the present value per share after the payment of dividends equal the current value per share before the dividend payments. Stated differently, the prevailing market price of the share at the beginning of a period can be defined as the present value of the dividend which is paid during the period, plus the present value of the market price of the share at the end of the period, (Baker et al., 2002). Investors are therefore indifferent toward retained earnings and the payment of dividends (with concurrent new issue financing) in all future periods. Thus, shareholders' wealth is not influenced by current and future dividend decisions, but depends entirely on the earning power of the firms assets.

According to Lease et al. (2000) intuitively, the dividends irrelevance policy can be explained as follows; if an investor desires to receive from a firm cashflows that exceed the dividend payment chosen by the firm's management, the investor can create homemade dividends by selling shares to achieve the desired cashflow level. This reduction in the shareholders ownership stake in the firm from the sale of shares exactly matches the decline in share value the investor would experience if the firm paid the desired dividend or the investor would create a homemade dividend via selling shares, the investor is equally satisfied and the investors remaining shares have the same value.

Lease et al. (2000) posits that if the investor receives dividend cashflow that exceed his or her consumption needs, then investor can still neutralize the firm's dividend decision by reversing the flow of unwanted shares. With this transaction, the value of the shareholders interest remains unchanged although the shareholder had forgone a dividend payment from the firms' standpoint, if the dividend payment under the desired dividend policy exceeds the operating cashflows less positive NPV investment expenditures, the firm makes up the financing shortfall by selling new shares in the market place. Under perfect capital market selling shares is costless, so whether the firm finances new investments from internally or externally generated funds, is immaterial. Hence, from both the investor's and the firm's perspectives, a managed dividend policy is no different from a residual policy.

M & M abandon the assumption of complete certainty in regard to future profits and investments, and consider the case of uncertainty. They admit that dividends and share price are subject to uncertainty, but maintain that dividend policy still continues to be irrelevant, and base their conclusion upon the arbitrage argument. The operation of arbitraging is taking advantage of market aberrations which present opportunity for profitable two-way simultaneous transactions in equivalents, that is, operations in which one share is bought and its equivalent sold at about the same time. This market imbalances in the short term, gives rise to opportunities for profit taking until an equilibrium point is reached. The assumption is that every investor behaves rationally in preferring more wealth to less. In these circumstances, differences in current and future dividend policies will not affect the market price of the two firms—the reason being that the present value of the future dividends, plus the market prices of the share at the end of the period is the same. In these circumstances, Miller and Modigliani (1961) maintain that, even under uncertainty, dividend policy is irrelevant and does not affect the share price of the firm given the investment policy of the firm. And as such does not affect shareholders wealth.

In summary, the dividend irrelevance theory states that the logic of the irrelevance theory is not disputed given the assumptions underlying the model. However, it is now generally accepted that the value of a model lies in the predictive or explanatory power and that the model cannot be judged by reference to the realism of its underlying assumptions.

2.4. The relevance of dividend theory

On the evolution of dividend distributions, DeAngelo, DeAngelo, and Skinner (2006) observed that dividend payment patterns of firms are a cultural phenomenon, influence by custom, beliefs, regulations, public opinion, perceptions and hysteria, general economic conditions and several other factors, all in perpetual change, impacting different firms differently. They posits that if dividends are irrelevant as proposed by M & M, then the dividend enigma deepens as companies could have retained earnings, the cheapest form of financing, to invest in profitable future NPV investments.

Lease et al. (2000) opines that the dividend relevance theory relaxes the assumption of perfect capital markets and rational investors. It analyses, empirically the behavior patterns of dividend distributions and their effects on the value of the firm. In the real world, market frictions are not costless and at most, investors do not always act rationally.

Baker et al. (2002) defines dividend policy under the relevance theory as follows; the dividend policy is a practical approach which treats dividends as an active decision variable and retained earnings as the residual dividends are more than just a means of distributing net profit, and that any variation in dividend payout ratio could affect shareholders wealth, a firm should therefore, endeavor to establish an optimal policy that will maximize shareholders wealth.

Lintner and Gordon (1956), pioneers of dividend relevance theory argues that shareholders prefer dividends to capital gains. This proposition is their bird-in-hand argument, which suggest that investors are generally risk averse and attach less risk to current as opposed to future dividends or capital gains, current dividend payments are therefore, believed to reduce investors uncertainty, causing investors to discount the firms earnings at a lower rate, thereby, all things being equal, placing a higher value on the firm.

According to Pandey (1999), dividend policy chosen by a firm should maximize shareholders wealth. Payment of dividend most often are made from the current year's profit and sometimes from the general reserve. Dividends can be in the form of cash, stock, stock split, stock repurchases, and regular dividend payment, etc. Miller and Modigliani views dividend as irrelevant, under a perfect market situation for firms in the same risk class as firm dividend can only be influenced by earnings and the market price of a firm. Since the firm is faced with the decision of apportioning fund to retention for firm growth and paying out profit as dividend, it is the firm's earnings as opposed to dividend that determines the value of a firm (Miller & Modigliani, 1961; Pandey, 1999). Shareholders subscribe to cash dividend but also subscribe to growth of earnings per share when profit are retained and ploughed back into positive investment program (Azhagaiah, 2008). They are also of the view that this has affected shareholders that they are indifferent about earnings or capital gains. Dividends are used by management to maintain a certain level of earnings in a firm and sustain the prices of shares in the stock exchange. Investors on the other hand, are indifferent as regards to dividend payout by firms as they prefer the current year's dividend payment to future earnings and capital gains. Investors use this dividend situation as information to assess the profitability and growth of a firm. Managers possess superior information as to company prospect of future growth and may choose to communicate these information to the market. As such, information asymmetry exist (Lease et al., 2000; Pandey, 1999). This information provides signal to existing and prospective investors. It will offer tangible evidence as to a firm's ability to generate cash. An increase in share price may lead to an increase in shareholders wealth and vice versa. This has led some scholars to the belief that shareholders are risk averse, they prefer cash dividend to future capital gains. Thus, a "bird in the hand is worth more than two in the bush" (Naveed, Bilal, Relman, & Abu Ttalib, 2013).

2.5. Dividend signaling theory

In practice, change in a firm's dividend policy can be observed to have an effect on its share price—An increase in dividend producing an increasing in share price and then shareholders wealth and a reduction in dividends producing a decrease in share price and then shareholders wealth. This pattern led many observers to conclude, contrary to M & M's model, that shareholders do indeed prefer dividends to future capital gains. Needless to say M & M disagreed (Nnamdi, 2009).

The change in dividend payment is to be interpreted as a signal to shareholders and investors about the future earnings prospects of the firm. Generally a rise in dividend payment is viewed as a positive signal, conveying positive information about a firm's future earning prospects resulting in an increase in share price. Conversely a reduction in dividend payment is viewed as negative signal about future earnings prospects, resulting in a decrease in share price and wealth of investors.

Baker et al. (2002) states that the signaling models for paying dividends, developed by Bhattacharya, John and Williams (2000), and Miller and Rock (1985) suggest that managers as insiders choose dividend payment levels and increases, to signal private information to investors. According to them, managers have an incentive to signal this private information to the investment public when they believe that the current market value of their firm's shares is below its intrinsic level. The increased dividend payment serves as a credible signal when other firms that do not have favorable inside information cannot copy the dividend increase without unduly increasing the chance of later incurring a drop in dividends. The theorists therefore conclude that the dividend signaling hypothesis confirms that increased (decreased) cash dividends should experience positive (negative) price reactions. Dividend announcements signaling future profitability have also been established through empirical research (Baker et al., 2002). Most share price changes took place immediately following the announcement of a dividend, especially positive or negative dividend changes, through findings of empirical studies conducted by Aharony and Swary (1990), Asquith and Mullins (1983), and Kalay and Lowenstein (1996) as noted in Baker et al. (2002). However, consistency in findings in respect of dividend signaling models, have not been achieved over the years. Studies conducted by DeAngelo, DeAngelo, and Skinner (2004) did not support the hypothesized relation between dividend policies and future earnings. According to Frankfurter and Wood (2002), advocates of the signaling theories believe that corporate dividend policy is a cheaper medium of conveying private information to the markets than any other media forms. Frankfurter and Wood (2002) states that the use of dividends as signals imply that alternative methods of signaling are not perfect substitutes.

2.6. The bird-in-the-hand theory

According to Kapoor (2009), the essence of the bird-in-the-hand theory of dividend policy (advanced by John Lintner in 1962 and Myron Gordon in 1963) is that shareholders are risk-averse and prefer to receive dividend payments rather than future capital gains. Shareholders consider dividend payments to be more certain than future capital gains—Thus a “bird in the hand is worth more than two in the bush”.

Gordon (2003) contended that the payment of current dividends “resolves investor uncertainty”. Investors have a preference for a certain level of income now rather than the prospect of a higher, but less certain, income at some time in the future.

The key implication, as argued by Lintner and Gordon, is that because of the less risky nature dividends, shareholders and investors will discount the firm's dividend stream at a lower rate of return, “ r ”, thus increasing the value of the firm's shares.

According to the constant growth dividend valuation (or Gordon's growth) model, the value of an ordinary share, SVO is given by:

$$SVO = D1/(r - g)$$

where the constant dividend growth rate is denoted by g , r is the investor's required rate of return, and $D1$, represents the next dividend payments. Thus the lower r is in relation to the value of the dividend payment $D1$, the greater the share's value. In the investor's view, according to Lintner and Gordon, r , the return from the dividend, is less risky than the future growth rate g .

M & M argued against this and referred to it as the bird-in-the-hand fallacy. In their irrelevancy model, M & M assume that the required rate of return or cost of capital, r , is independent of dividend policy. They maintain that a firm's risk (which influences the investor's required rate of return, r) is a function of its investment and financing decisions, not its dividend policy.

M & M contend that investors are indifferent between dividends and capital gains—That is, they are indifferent between r and g is the dividend valuation model. The reason for this indifference, according to M & M, is that shareholders simply reinvest their dividends in share of the same or similar risk companies.

2.7. An empirical study of dividend in Nigeria

The earliest major attempt to explain dividend behavior of companies has been credited to Lintner and Gordon (1956) who conducted this study on American company in 1950s. Since then there has been an ongoing debate on dividend policy in the developed market resulting in mixed, controversial and inclusive results.

This issue did not receive any serious attention among academic scholars in Nigeria until 1974. Uzoaga and Alozieuwa (1998) attempted to highlight the pattern of dividend policy pursued by Nigerian firms, particularly during the period of indigenization and participation program defined in the first indiginazation Decree of 1973 their study covered 52 company-years of dividend action (13 companies for four years). They reported that they found very minimum evidences to support the classical influences that determine dividend policies in Nigeria during this period. They concluded that fear and resentment seem to have taken over from the classical forces.

However, Inang and Soyode (1975) commented on the work of Uzoaga and Alozieuwa. They concluded that the problem arising from dividend policy can be attributed to the share pricing policy of the capital issue commission (CIC), which seem to have ignored the classical factors that should have govern the pricing of equity share issues. This in turn made companies to abandon all the classical determinants of dividend policy. Inang and Soyede criticized Uzoaga and Alozieuwa's work on the ground that it glossed over some important determinants of optimal dividend policy; he also questioned certain conclusions made in the study because they were inadequate or a mistaken evaluation.

Furthermore, Oyejide (1976) empirically tested for company dividend policy in Nigeria using Lintner's model as modified by Brittan (1964), he disagreed with previous studies and reported that the variable evidence strongly support the fact that conventional devices explain the dividend policy of Nigerian public companies. Nwachukwu (2007) criticized the Oyejide study for failing to adjust to stock dividends and seem to agree with Uzoaga and Alozieuwa's conclusion. However, Izedonmi and Eriki (1996) using data from 1984 to 1989 found supporting evidence in Nigeria for Lintner's model.

Adelegan (2003) evaluated the asymmetric information of dividend, given earnings by shareholders in Nigeria. She carried out a study on 882 firms by analyzing the dividend policy and its effect on wealth maximization on a sample of 62 quoted firms in Nigeria over a wider testing period of 1887–2000. She found a significant result and concluded that dividend policy does affect wealth maximization.

With the exception of Izedonmi and Eriki (1996) and Adelegan (2003), the inconclusive controversy seems to have come to a temporary halt in the late 1990s. The attention of academic scholars became diverted in the early 1990s to the study of the weak-form efficient market hypothesis (EMH) on the Nigerian stock market. Few other scholars have tried to continue the research on dividend policy but without new findings like Olowe (1998) as cited in Black (2006).

3. Methodology

The structural framework of this study is based on survey design (Asika, 2006). The population of this research is the 216 public limited companies in Nigeria as at September 2015, with a selection of 10 companies using the Quota random sampling technique. This is applied where the population is made up of some natural grouping or parts. Each natural grouping is given a fair representation in

the sample (Asika, 2006). The basis is to ensure that all industries are covered. The banking sector, the oil sector, manufacturing sector, food and beverages sector, construction sector, agricultural sector, insurance companies. Questionnaires were administered to the respondents from Zenith bank Nigeria plc, First bank Nigeria plc, Nigerian Breweries plc, Presco plc, Julius Berger plc, Cadbury Nigeria plc, Oando plc, Guinness Nigeria plc, Dangote Cement Nigeria plc, Royal exchange Assurance. To ensure that all industries quoted in the Nigerian stock exchange are covered, these companies were selected. A total number of 120 questionnaires were distributed and the researcher was unable to distribute 20 copies due to time constraint and limited resources at their disposal. The research instrument contains 13 questions on dividend policies against which the respondents were asked to indicate their level of agreement upon a five-point Likert scale (where 5 = strongly agree, 4 = agree, 3 = undecided, 2 = disagree and 1 = strongly disagree). Each question number is subsequently referred to as S1–S13. The sample denoted by (n) and is derived using the Taro Yamen’s formular.

A total number of 120 questionnaires were administered to finance managers, chief accountants, directors of Zenith bank plc, First bank plc, Nigerian breweries plc, Presco plc, Oando plc, Guinness Nigeria plc, Dangote cement plc, Royal exchange plc, and chartered accountants, and shareholders. 90 questionnaires were responded to and returned. Selected questions in the questionnaires which are closely related to the purpose of the study are tabulated and analyzed using Anova is a measure of comparison which detects overall difference in means of measurements made on three or more groups in other to identify the sources of variation in the groups. It is derived by

Between group sum of square

Within group sum of square

Formula for between group sum of squares

$$\sum \frac{(\sum X)^2}{n} - \frac{(\sum X)^2}{n}$$

Formula for within group sum of squares

$$\sum \sum X^2 - \frac{(\sum X)^2}{n}$$

3.1. Test of hypothesis 1

$$\sum \sum X = 360 = \left(\sum \sum X \right)^2 = 129,600 \therefore \left(\sum \sum X \right)^2 / n = 129,600 / 35 = 3,702.9$$

Formula for between groups sum of squares

$$\sum \frac{(\sum X)^2}{n} - \frac{(\sum X)^2}{n}$$

$\therefore 1,999.2 - 3,702.9 = 1,703.7$

Formula for within group sum of squares

$$\sum \sum X^2 - \sum \frac{(\sum X)^2}{n}$$

$9,996 - 1,999.2 = 2,996.8$

Degree of freedom (df) = $K - 1$ (number of groups minus one)

$$\therefore 7 - 1 = 6$$

Degree of freedom (df) for within groups = $N - K$ (total number of respondents in the groups minus number of groups)

$$\therefore 35 - 7 = 28$$

Degree of freedom (df) for total variance = $N - 1$ (total number of respondents in the groups minus one) $\therefore 35 - 1 = 34$

$$\text{Mean sum of squares (variance estimate)} = \frac{1,703.7}{6} = 283.95$$

$$\text{Within group mean square} = \frac{2,996.8}{28} = 107.03$$

$$F - \text{ratio} = \frac{283.95}{107.03} = 2.65$$

F table at 5% level for $V_1 = 6$

$$V_2 = 28 = 2.44$$

$$H_0: X_1 = X_2 = X_3 = X_4 = X_5 = X_6 = X_7$$

$$H_1: X_1 = X_2 = X_3 = X_4 = X_5 = X_6 = X_7$$

Decision rule

if $|F_{\text{cal}}| > |F_{\text{table}}|$ reject H_0 and accept H_1

if $|F_{\text{cal}}| < |F_{\text{table}}|$ accept H_0 and reject H_1

$|2.65| > |2.44|$ we accept the alternate (H_1) that is, information content of dividend determines dividends payout by firms (Tables 1 and 2).

3.2. Test of hypothesis 2

$$\sum \sum X = 451 = \left(\sum \sum X \right)^2 = 203,401 \therefore \left(\sum \sum X \right)^2 / n = 203,401 / 35 = 5,811.5$$

Formula for between groups sum of squares

$$\sum \frac{(\sum X)^2}{n} - \frac{(\sum X)^2}{n}$$

$$\therefore 2,488.6 - 5,811.6 = 3,323$$

Formula for within group sum of squares

$$\sum \sum X^2 - \sum \frac{(\sum X)^2}{n}$$

$$11,443 - 2,488.6 = 8,954.4$$

Degree of freedom (df) = $K - 1$ (number of groups minus one)

$$\therefore 7 - 1 = 6$$

Degree of freedom (df) for within groups = $N - K$ (total number of respondents in the groups minus number of groups)

$$\therefore 35 - 7 = 28$$

Table 1. Information content of dividends determines dividend payout by firms

	Finance manager	Chief account	Director	Share holders	Chartered account	Stock broker	Staff of company	
<i>N</i>	5	5	5	5	5	5	5	$\sum n = 35$
$\sum X$	28	20	32	40	40	40	160	$\sum \sum X = 360$
$\sum X^2$	258	126	312	550	386	560	7,804	$\sum \sum X^2 = 9,996$
$\sum X^2/n$	51.6	25.2	62.4	110	77.2	112	1,560.8	$\sum (\sum X^2/n) = 1,999.2$

Source: Author's computation.

Table 2. F table showing significance

Source of variation	Sum of squares	Degree of freedom	Mean sum of squares variation	F
Between groups	1,703.7	6	283.95	2.65
Within groups	2,996.8	28	107.03	
Total	4,700.5	34		

Source: Author's computation.

Degree of freedom (df) for total variance = $N - 1$ (total number of respondents in the groups minus one) $\therefore 35 - 1 = 34$

$$\text{Mean sum of squares (variance estimate)} = \frac{3,323}{6} = 553.8$$

$$\text{Within group mean square} = \frac{8,954.4}{28} = 212.01$$

$$F - \text{ratio} = \frac{553.8}{212.01} = 2.61$$

F table at 5% level for $V_1 = 6$

$$V_2 = 28 = 2.44$$

$$H_0: X_1 = X_2 = X_3 = X_4 = X_5 = X_6 = X_7$$

$$H_1: X_1 \neq X_2 \neq X_3 \neq X_4 \neq X_5 \neq X_6 \neq X_7$$

Decision rule

if $|F_{\text{cal}}| > |F_{\text{table}}|$ reject H_0 and accept H_1

if $|F_{\text{cal}}| < |F_{\text{table}}|$ accept H_0 and reject H_1

$|2.61| > |2.44|$ we accept the alternate (H_1) that is, agency cost between shareholders and management affects the dividend payment pattern of firms (Tables 3 and 4).

Table 3. H₂: agency cost between shareholders and management affects the dividend payment pattern of firms

	Finance manager	Chief account	Director	Share holders	Chartered account	Stock broker	Staff of company	
N	5	5	5	5	5	5	5	∑n = 35
∑X	35	25	40	50	50	50	201	∑∑X = 451
∑X ²	351	141	510	1,166	688	574	9,013	∑∑X ² =11,443
∑X ² /n	70.2	28.2	102	233.2	137.6	114.8	1,802.6	∑(∑X ² /n)=2,488.6

Source: Author's computation.

3.3. Test of hypothesis 3

Table 4. F table showing significance

Source of variation	Sum of squares	Degree of freedom	Mean sum of squares variation	F
Between groups	3,323	6	553.8	2.61
Within groups	8,954.4	28	212.01	
Total	12,277.4	34		

Source: Author's computation.

$$\sum \sum X = 359 = \left(\sum \sum X \right)^2 = 128,881 \therefore (\sum \sum X)^2 / n = 128,881 / 35 = 3,682.3$$

Formula for between groups sum of squares

$$\sum \frac{(\sum X)^2}{n} - \frac{(\sum X)^2}{n}$$

$$\therefore 2,083 - 3,682.3 = 2,599.3$$

Formula for within group sum of squares

$$\sum \sum X^2 - \sum \frac{(\sum X)^2}{n}$$

$$10,415 - 2,083 = 4,332$$

Degree of freedom (df) = K - 1 (number of groups minus one)

$$\therefore 7 - 1 = 6$$

Degree of freedom (df) for within groups = N - K (total number of respondents in the groups minus number of groups)

$$\therefore 35 - 7 = 28$$

Degree of freedom (df) for total variance = N - 1 (total number of respondents in the groups minus one) $\therefore 35 - 1 = 34$

Table 5. H₃ information content of dividend affects dividend payout by firms

	Finance manager	Chief account	Director	Share holders	Chartered account	Stock broker	Staff of company	
N	5	5	5	5	5	5	5	Σn = 35
ΣX	28	20	32	40	40	40	159	ΣΣX = 359
ΣX ²	312	136	358	798	556	546	7,709	ΣΣX ² = 10,415
ΣX ² /n	62.4	27.2	71.6	159.6	111.2	109.2	1,541.8	Σ(ΣX ² /n)=2,083

Source: Author's computation.

Table 6. F table showing significance

Source of variation	Sum of squares	Degree of freedom	Mean sum of squares variation	F
Between groups	2,599.3	6	433.2	2.80
Within groups	4,332	28	154.7	
Total	6,931.3	34		

Source: Author's computation.

$$\text{Mean sum of squares (variance estimate)} = \frac{2,599.3}{6} = 433.2$$

$$\text{Within group mean square} = \frac{4,332}{28} = 154.7$$

$$F - \text{ratio} = \frac{433.2}{154.7} = 2.80$$

F table at 5% level for V₁ = 6

$$V_2 = 28 = 2.44$$

$$H_0: X_1 = X_2 = X_3 = X_4 = X_5 = X_6 = X_7$$

$$H_1: X_1 = X_2 = X_3 = X_4 = X_5 = X_6 = X_7$$

Decision rule

if $|F_{\text{cal}}| > |F_{\text{table}}|$ reject H₀ and accept H₁

if $|F_{\text{cal}}| < |F_{\text{table}}|$ accept H₀ and reject H₁

$|2.80| > |2.44|$ we accept the alternate (H₁) that is, information content of dividend affects dividend payout by firms (Tables 5 and 6).

4. Results and discussion

The results suggest that dividend policies affect shareholders' value. Investors prefer the bird-in-hand form of dividend payment against the retention approach by management as well as a steady dividend payment. Shareholders in practice usually prefer firms with a stable and predictable dividend policy and can predict a firm's dividend stability or changes in dividend payment overtime. This could easily be done using information available in a firm's financial forecast with regard to its earnings, previous dividend, and market price per share. This work as extended previous studies on

dividend policies on wealth maximization and has agreed with the findings of Adelegun on dividend payout of firms carrying information as to the future prospect of the firm.

5. Conclusion

Against the backdrop of improving firm value and therefore shareholders' wealth, the main purpose of this research has been to examine and analyze dividend policies of public companies in Nigeria. This was to establish whether dividend policies have an effect on the value of a firm and shareholders' wealth. This was accomplished by conducting a survey among finance managers, shareholders', directors of firms, stock brokers and accountants. The survey was drawn up from normative theories based on the dividend function. Generally a high dividend increases the market value of shares and vice versa. Shareholders prefer current dividends to future income. So, dividend is considered as an important factor which determines the shareholder's wealth. Dividend has information content and the payment of dividend indicates that the company has a good earnings capacity.

The results further suggest that investors prefer the bird-in-hand form of dividend payment against the retention approach by management as well as a steady dividend payment. The accounting professional bodies should enforce standards on dividend policies of firm and ensure that it should be adhered to given the fact that directors of companies are responsible for making dividend decision. A high dividend increases the market value of shares thus, shareholders value and vice versa. Shareholders prefer current dividends to future capital gains. As such, dividend is an important factor which determines the shareholder's wealth. Information asymmetry exists and the payment of dividend indicates that the company has a good earnings capacity. Management should maintain a steady increase in earnings, cash flow and dividend payment and establish a dividend policy that can be acceptable to the various stakeholders in the firms (Anvarkhatibi, Safashur, & Jamal, 2012). Dividend payout ratio is a passive residual. This shows that Nigerian firms apportion more earnings to retention for the ploughing back in the firm and growth. The implication of this finding is that the level of a firm growth should be considered in firm's dividend decisions.

6. Limitations of the study

The constraint envisaged in the course of carrying out this study was on the return of questionnaires on time and attitude of workers toward responding to the questionnaires. But these limitations did not in any way affect the authenticity of the work.

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Appendix 1

Section A

- (1) What is the name of your establishment? _____
- (2) What is your job title? _____
- (3) How many years of business experience, specifically in the financial function, do you have? _____

Section B

Please tick (✓) the appropriate answer to each question or otherwise fill in the blank space where necessary.

- 5 = Strongly agree
- 4 = Agree
- 3 = Undecided
- 2 = Disagree
- 1 = Strongly disagree

	SA	A	U	DA	
(1) Do you think that a dividend policy is important because of the effect it has on the company's share price and shareholders wealth?					
(2) Does your company pay dividend only when positive investments project have been financed?					
(3) Do you think that shareholders prefer the bird-in-the-hand theory of dividend payouts, that is, receiving dividend payout now not bothering what future dividends will be?					
(4) Do you think that dividend payout provide signals to prospective investors?					
(5) An increase in a dividend payout is usually accompanied by an increase in the share price?					
(6) A decrease or omission of a dividend payout is usually accompanied by a decrease in the share price?					
(7) Do you think that a common dividend policy could be used by all companies?					
(8) Do you think that dividend payouts remove excess cash flow from being invested in negative investment projects that will only reduce shareholders wealth?					
(9) Do you think that a firm should strive to maintain uninterrupted or a steady dividend payment?					
(10) Do you think that dividend policies have no effect on shareholders wealth?					
(11) Do you think that a firm should have a target payout ratio and always adjust its dividend payment toward the target?					
(12) Do you think that the market uses dividend announcements as information for assessing share values?					
(13) Do you think that management should be responsible to its shareholders preference regarding dividends					



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