

## Impact Of Dividend Policy On The Value Of Firms

**Innocent Augustine Nwaorgu (Ph.D)**

Department of Accounting, College of Management sciences,  
Michael Okpara University of Agriculture Umudike. Umuahi, Abia state.

**Jennifer Nkeiruka Uzoegbu (Msc)**

Department of Accountancy. Faculty of Social and management sciences,  
University of Mkar, Gboko. Benue state.

### ABSTRACT

**This study empirically investigates the impact of dividend policy on the value of firms for a sample of twelve (12) consumer and manufacturing companies listed on the Nigerian Stock Exchange (NSE). The study was carried out for a period of 10 years (2007-2016). The empirical estimation is based on the 'Bird in Hand Dividend Theory' supported by Fairchild (2010) and employed Random Effect Regression to analyze 120 observations. The results tend to support the theory of Miller and Modigliani (1961) which suggests that dividends are irrelevant to firm value for firms listed on the Nigerian Stock Exchange (NSE). Hence, from the empirical findings, the study concludes by agreeing with most of the dividend irrelevant proponents that dividend does not matter to corporate value. The study therefore carefully recommends that managers must review the opinions of their core investors in deciding dividend policy that meets with their expectations.**

### INTRODUCTION

The idea that dividend policy is an important attribute of corporate finance and its practical implications for many firms and stakeholders (investors, managers, lenders) is not a novel issue. It is a known strategy that firms which are performing well and generating more income have different channels into which they invest such generated income for better use. This can be linked to the residual theory of dividend which describes a common tendency for managers to reinvest the profit of the firm due to the clientele effect accompanied by great pressure on companies to pay dividends.

In today's world we find out that the harder we look at the dividend picture the more it seems like a puzzle, a dilemma or a mystery with pieces that just do not fit together" Black, (1976). However, after so much research on dividend policy in corporate finance and accounting studies, three core beliefs became very evident. To the right of this argument, there are some researchers who believe that the value of the firm will significantly increase when dividend payout ratio is increased (known as conservative group). While to the left of this argument, there is a radical group who believes that the value of the firm will significantly reduce due to the increase in the dividend payout ratio. And, in between these sides, there are some theorist who believed that the payout policy makes no significant difference, and are also known as Miller and Modigliani (MM) (1961) Myers & Majluf, (1984). The irrelevance of the dividend decision in the world without taxes, transaction cost or other market fault have been hypothetically supported in a seminar paper illustrated by Miller & Modigliani, 1961.

Corporate organizations, beverages and breweries firms inclusive are faced with the problem of whether to increase, decrease, or employ zero percentage of their earnings as dividends vis - a- vis financing future investments projects. This challenge is borne out of the desire to satisfy various needs of shareholders. Due to the fact of having to deal with competing interests of

various shareholders, the kind of dividend policy adopted could either bring about a positive or negative effect on the value of the firm since managers are unable to forecast with certainty the extent that the policy will affect the value of their firms.

Several factors affect firm's dividend policy, which includes: legal constraints, contractual constraints, firm's growth prospects, owner considerations, and market considerations Gitman & Zutter, (2012). On the other hand, dividend policy significantly affects firm's ability to raise funds and consequently its value. Conventional wisdom affirms that a dividend policy that is well managed has an impact on firm's share price and shareholders' wealth Inyiama, Okwo & Inyiama, (2015).

However, despite the fact that so much studies that have been carried out on the subject of dividend policy which include Arnott and Asness (2003); Farsio et al (2004) and Nissim and Ziv (2001) the issue on dividend policy remains an unresolved issue in corporate finance. Several theories have been advanced to explain the relevance of dividend policies as it relates to firm value, but there has not been a universal agreement Stulz, (2000); Pandey, (2003); DeAngelo et al., (2006). Also in the light of this subject, only few studies have employed varying forms of dividend financial ratios in testing its relationship with firm value. Such ratios include but not limited to: Dividend Yield, Dividend Increase, Dividend Decrease, and Dividend Coverage.

Furthermore, it will be remarkable to note that most of the studies on the impact of dividend policy on firm value have been conducted in developed economies. There are very scanty studies which have been done in developing/ emerging economies (especially in Nigeria), as a result creating a huge knowledge gap. It is against this backdrop that the researcher seeks to find out the impact of dividend payout policy on the value of the firm. In this study, the value of the firm is proxy by Tobin Q which has been scarcely employed in issues relating to dividend policy among academic researchers in Nigeria. Furthermore, existing studies have been particular about financial sectors of the economy whose attributes and operations are significantly different. But this study is being directed towards the subsectors of breweries and beverages companies listed on the Nigerian Stock Exchange.

The strategy of this research work is effective to capital costs and payment of corporate profits. The selection of a mode of capital financing structure, such as circulation of new equity will help managers find out which internal financing structure is most viable for improving shareholders value. In the optimization of corporate dividend policy decisions, it is very important to understand the various sources of finances and cost in order to make decisions on maximizing corporate value and shareholder's equity.

Against the backdrop of shareholders' wealth maximization and the bird in hand theory, this study will develop a further understanding of dividend policy in Nigeria, through empirical analysis of the relationship between corporate dividend policy as it impacts firm value, especially at this instance of the present economic recovery era. In addition, the study will provide an extension of the currently available tests in corporate dividend policy through choosing samples of listed firms in an emerging market. Also insightful recommendations on how the significance of dividend policy in Nigeria can be optimized to increase stakeholders' confidence and boost the maximization of wealth will be addressed.

## LITERATURE REVIEW

### Dividend Policy

Dividend policy of a firm becomes the choice of financial strategy when investment decisions

are taken as given. However, it is also imperative to know whether the firm will go for internal or external source of financing for its investment project. Dividend policies appears differently for different countries because of different tax policies, rules, regulations and different institutions and capital markets which suggest that a number of internal factors would possibly influence dividend policy decisions of a firm Zameer et al, (2013). These factors are but not limited to investor's preference, earnings, investment opportunities; annual vs. target capital structure, flotation costs, signaling, stability, Government policies and taxation. In the presence of asymmetric information, signaling is one of the crucial factors that influence the market. Dividends may convey very vital information about the company, more so that it suggests the possibility of its influence on the stock market. Paying large dividends reduces risk and thus influence stock price Gordon, (1963) and is a proxy for future earnings Baskin, (1989).

Dividends have been seen differently by different writers. According to Arthur and Sheffrin, (2003) they are payments by a corporation to its shareholder members; it forms part of corporate profits that are paid out to shareholders. In the light of this, we can say that when a corporation earns a profit or surplus, that money can be put to two uses: it can either be re-invested in the business, or it can be distributed to shareholders. Research studies such as that of De Cesari, Espenlaub, (2001); Simkovic, (2009) supports two ways to distribute cash to shareholders which includes: share repurchases or dividends. They posit that managers avoid reduction in dividend because of the sticky signal it sends to the investors and shareholders. Odia and Ogiedu (2013) view it as a tip of an iceberg of future failure even while it remains a hallmark of incompetent management Baskin, (1989).

Abor and Bokpin (2010) noted that current and past years' profits are important factors in influencing dividend payments. Firms which continually post good profits are in a better position to pay dividends to their shareholders. On the contrary, companies that perform poorly over many years are unable to sustain dividend payments to their shareholders Ajanthan, (2013).

As noted by Kapoor, (2009), dividend policy indicates the disbursement policy, which directors follow in making decisions of the pattern as well as size of cash supply to stockholders over a particular time. Dividend policy is a company's policy focusing on paying out salaries as dividend against retaining them for reinvestment in the company. But it is referred to be the portion of profit between expenditures to stockholders as well as reinvestment in the company Lashgari & Ahmadi, (2014). Dividend policy as described by Aduda & Kimathi, (2011) is the strategy of action accepted by the company's managements every time there is a choice to be made. While, Emeni & Ogbulu (2015) posit that the main concern of corporate dividend policy decision is the knowledge of how much income can be paid as dividend by the company and how much could be reserved for future investments.

### **Firm Value**

Value entails the quality that solidifies something wanted or advantageous; the amount of cash desired to acquire something; or what ought to be given, done, or experienced to get something Oladele, (2013). Therefore, a company's value will then be described as all the values of its monetary rights. Such that the business value is based on the continuous concern or anticipation in the current value of all the predictable future cash flows to be produced by its assets, reduced at the corporation's weighted regular cost of wealth Chowdhury & Chowdhury, (2010).

Pandey (2005) argues that the value of the company is the total value of all its monetary securities. The money streams received by the required claims should add up to the entire cash

flow that its assets produce. In a diverse situation where the company's profits vary, the problem of exploiting value becomes rather more complex. Value may be predicated on the dividends streams that the stockholder will receive during the entire firm's life, discounted back to the present time Parkinson & Waweru (2010). Oladele, (2013) submits that companies exist in the market to make worth for their stockholders hence; creation of value can be described as the upsurge in the monetary worth of stockholders, as measured by proportion of marketplace value of stocks to the book value of stocks, produced by the presentation of a company.

### **Empirical Review**

Whether dividend policy affects firm's value or not has been presented by several studies in different perspective. A survey study conducted by Farrelly, Baker, and Edelman (1986) concludes that managers view dividend policy as having a positive relationship with firm's value. Gordon and Shapiro (1956) Linter (1956), Walter (1963) and Fairchild (2010) supported this theory, while some theories opposed this view and suggested that dividend payout negatively influence firm's value. Linter (1956) indicated that dividend amount is determined by firm's current year earnings and its previous year's earning. This proposition is confirmed by Matthias et al. (2008) who studied Nigerian banks and found that dividend amount is decided on the basis of current year's profit and past year's profit.

Investigating dividend policy of Saudi Arabian firms Al-Ajmi and Abo Hussain (2011) identified lagged dividend payments, profitability, cash flows and lifecycle as determinants of dividend payments and supported Linter's (1956) model. They found significant relationship between dividend amount and current as well as previous profitability. The study of Raymond et al (2017) in a comparative study of Nigerian listed companies, suggest that telecommunication firms in Nigeria are more profitable with higher dividend cover than commercial banks.

The empirical study of Christopher, et al, (2009) showed that stock prices could be determined by micro and macro economic factors which include: Book Value of the Firm, Dividend Per Share, Earnings Per Share, Price- Earnings Ratio and Dividend Cover.

Whited (1992) and Vogt (1994) find that the relationship between investment and dividend policy could be negative which implies that an increase in investment opportunities will result in a decrease in dividend payment and vice versa. This same assumption is supported by the findings of La Porter et al. (2000) who argues that the relationship between investment and dividend policy will depend on the quality of shareholder protection provided by the country where the firms operate.

The empirical findings of Gugler and Yurtoglu (2003) confirm the work of Lang and Litzenberger's (1989). From their results in a sample from the German market, they find a larger price drop after dividend decreases for firms having poor investment opportunities compared to other firms.

However, Yoon and Starks (1995) employing a larger sample than Lang and Litzenberger (1989) find evidence against the free cash flow hypothesis in the US market. Their descriptive analysis show that for dividend increases, firms with value less than unity are smaller, have a higher dividend change and exhibit a higher dividend yield. They posit that the stronger price appreciation after dividend increases of firms with firm value less than unity is due to the characteristics of these firms.

Among other authors, Bajaj and Vijh (1990) argued that the stock price reaction following an

unexpected dividend change should be more pronounced in firms with high dividend yields if and only if the investors in those firms have a preference for stocks with a high yield. This phenomenon is referred to as “clientele effect”.

Baskin (1989) employed panel data analysis to find out the effects of dividends on stock volatility of 2344 US firms for the period 1967-1986. The finding reports a strong correlation between dividend yield and securities price volatility while Al Masum (2014) found that dividend yield has a significant negative correlation with share price. The empirical result of Woolridge (1983) show a significant increase (decrease) in common stock return following the unexpected dividend increase (decrease) announcements. Amihud and Murgia (2001) reported that the average excess return (AER) of stock prices is positive for dividend increase and negative for dividend decrease.

The findings of Hashemijoo (2012) who investigate the impact of dividend policy on share price volatility in the Malaysian Stock Exchange depicted that there is a negative significant relationship between both dividend yield and payout ratio with share price volatility.

Following the study of Perretti (2013) on the propensity of change in dividend amount for ARD firms of USA the result show that firm size, growth opportunities and earned/contributed capital mix are significant determinants of changes in dividend policy in a multivariate logit regression. The analysis show that if firm’s total capital comprises of a high proportion of earned capital, the probability of paying dividends will increase. Also the result further show that ADR firms that possesses high opportunities to grow, have low probability of paying regular dividends while firms that are more profitable, keep their dividend amount smooth. Furthermore, firm size, profitability, and earned/contributed capital mix have positive relationship while the variable of growth opportunity has negative association with dividend change.

Saeed et al. (2014) explored the determinants of dividend payouts of financial sector of firms listed at Karachi Stock Exchange of Pakistan. The study established a negative relationship between dividend payouts with firm’s size. As firm size increases, its payout declines. They found positive but insignificant relationship between firm’s liquidity and its payout ratio. The result showed a positive relationship between firm’s cash flow and dividend payouts.

Travlos, (2001) used samples from an emerging market in favor of the dividend signaling hypothesis. They studied a sample of 41 announcements of cash dividend increase and 39 announcements of stock dividends for firms quoted on the Cyprus Stock Exchange over the period of 1985 to 1995, and examined market reaction to the announcement effects of cash dividend increases and stock dividends. Their finding suggests positive and significant abnormal returns for both cash dividend increases and stock dividend announcements and showing consistency with the signaling hypothesis.

Furthermore, Denis et al (1994) investigated a sample of 5992 dividend increases and 785 dividend decreases between 1962 and 1988. They investigated the relationship between dividend yield and firm value, and observed the relationship to be negative. They argued that this negative relationship is attributable to a negative correlation between dividend yield and firm value, suggesting that the market perceived this as a signal that overinvestment problems may have been reduced. Also, Denis et al. (2010) examined the level of capital spending for low and high Value firms in relation to changes in dividend. They observed that  $Q < 1$  firms increased their investments following dividend increases and decreased them following dividend decreases. However, this result contradicts the overinvestment hypothesis.

## **Theoretical Framework**

This study is based on the 'Bird in the Hand Theory' developed by John Lintner 1962 and Myron Gordon, 1963. The essence of this theory is that stockholders are risk averse and prefer current dividends due to their lower level of risk as compared to future dividends. Dividend payments reduce investor uncertainty and thereby increase stock value. This theory is based on the logic that 'what is available at present is preferable to what may be available in the future'. Investors would prefer to have a sure dividend now rather than a promised dividend in the future (even if the promised dividend is larger). Hence dividend policy is relevant and does affect the share price of a firm. Bird in hand is referred as dividends while bush is capital gains. This theory refers that it is better to distribute dividends rather than keeping cash reserves. Increase in dividend payouts increases firm value. As firm declares high dividend, cost of capital reduces, and ultimately share value increases. Fairchild (2010) supported this theory. The study follows the hypothesis of a significant relationship between dividend policy and firm value.

Dividend policy has been one of the most focused research area in finance. According to Ooi, (2001) a lot of research work has been done all over the world about dividend policy, but still it is a puzzle in finance. However, many researchers have presented theories and factors that determine dividend policy but till date no single rule can govern dividend policy as various factors have been seen to influence dividend decisions of a firm. This research issues may be dated back to the work of Linter (1956), Miller and Modigliani (1961).

Overall, the subject of dividend policy and its impact on firm's value have been viewed from three main conflicting theories. The first theory proposes that dividend payout has positive impact on firm's value which is referred to as the Bird in Hand Theory. While another theory supports that dividend payout has an inverse relationship with firm's value (The Tax-Preference Theory). The third major proponents of dividend theory propose that dividend decisions have no impact on firm's value viewed as the 'Dividend Irrelevance Theory'. Other theories such as signaling theory, clientele effect and agency cost make dividend decisions a puzzle.

Prior to the work of Miller and Modigliani (1961) it was believed that dividend payout is directly related to firm's value but against this school of thought, Miller and Modigliani (1961) believed dividend irrelevance theory. According to this theory, investors lack interest for dividends and capital gains. According to them, dividends have no impact on firm's value either on stock price or on cost of capital. Miller and Modigliani posited that the value of a firm is evaluated through its earning and its investments not through dividend decisions.

Tax preference theory suggests that investors prefer low dividend payout for the growth of a firm. Considering double taxation factor, low dividend payout is preferred because it will increase stock price and lower cost of capital. Low dividend payout in other words maximizes firm's value. Tax preference theory opposes bird in hand theory and suggested that decrease in dividend payouts increase firm's value.

## **METHODOLOGY**

### **Research Design**

Research design is "the structuring of investigation aimed at identifying variables and their relationships to one another" Asika, (2008). The research study focuses on the impact of dividend policy on firm value in Nigeria. For the purpose of this study, the ex-post factor (correlation) research design was adopted. A correlation research design determines whether two variables are related, which implies that an increase or decrease in one variable

corresponds to an increase or decrease in the other variable. Correlation research design was considered adequate and appropriate for this study because it can describe the statistical relationship between independent variables of the study and the dependent variable. However, firm size, firm age and firm leverage were used as control variables in this research work.

**Population of Research Study**

According to Asika (2008), a population is made up of all conceivable elements, subjects or observations relating to a particular phenomenon of interest to the researcher. It is expedient to know the nature of the population so as to aid the choice of sampling technique. The study population consists of all consumer and manufacturing listed firms quoted on the Nigerian Stock Exchange as at 31st December 2016. The study covered a period of ten years (2007-2016).

**Sample Size and Sampling Technique**

In taking into account the nature of the population, the study employed a simple random sampling technique and based on two filter criteria to arrive at the final sample for the study. Consumer and conglomerate companies that do not meet nor conform to the filter criteria below were eliminated.

1. All the sampled companies must make available their annual report of ten (10) years under study i.e. 2007-2016.
2. All Consumer and conglomerate firms listed in the sample must be quoted on the Nigerian Stock Exchange before year 2007

Following this strategy, the final sample size results to twelve (12) Consumer and Conglomerate companies which includes; 7up Nigeria Plc, Cadbury Nigeria Plc, Champion Breweries, Guinness Nigeria Plc, International Breweries Plc, Nascon Allied Plc, Nestle Nigeria Plc, Nigerian Breweries Plc, Pz Cusson, Tiger Branded Plc, UAC of Nigeria Plc, and Uniliver Nigeria Plc.

**Data Source**

This study employed secondary sources of data collection. The data were obtained from the annual reports and accounts of the sample companies and Nigerian Stock Exchange (NSE) Fact Book in order to achieve the objectives of the study. This is due to the fact that corporate annual reports of listed companies were readily available and easily accessible. However, the final compilation was done by MachameRatios.

**Model Specification**

A multiple regression model was used to analyze the data using Stata Version 13. Analysis was done using Pearson correlation to measure the association between the independent variables. Panel Least Square Regression technique was used to test the relationship between the various forms of dividend policies employed by listed Consumer and Conglomerate companies in Nigeria. The study adopted the following regression models:

$$Y_1 = \alpha_0 + \alpha_1\beta_1 + \alpha_2\beta_2 + \alpha_3\beta_3 + \alpha_4\beta_4 + \mu_t \dots \dots \dots (1)$$

$$Y_2 = Y_0 + Y_1\beta_1 + Y_2\beta_2 + Y_3\beta_3 + Y_4\beta_4 + Z_t \dots \dots \dots (2)$$

$$Y_3 = \chi_0 + \chi_1\beta_1 + \chi_2\beta_2 + \chi_3\beta_3 + \chi_4\beta_4 + y_t \dots \dots \dots (3)$$

$$Y_4 = Z_0 + Z_1\beta_1 + Z_2\beta_2 + Z_3\beta_3 + Z_4\beta_4 + q_t \dots \dots \dots (4)$$

Where:  $Y_1, Y_2, \dots, Y_4$  = Firm Value (tobinq),

$\alpha_0, \gamma_0, \chi_0, Z_0$  = Intercept for model 1, 2, 3, 4 respectively

$\alpha_1, \gamma_1, \chi_1, Z_1$  = Coefficient estimate for independent variable of interest (Dividend Coverage, Dividend Yield, Dividend Increase, and Dividend Decrease)

$\beta_1$  = Independent variable of interest (Dividend Coverage, Dividend Yield, Dividend Increase, and Dividend Decrease respectively)

$\alpha_2, \gamma_2, \chi_2, Z_2, \eta_2$  = Coefficient estimate for control variable of firm size for models 1.....4

$\beta_2$  = Control variable of firm size

$\alpha_3, \gamma_3, \chi_3, Z_3$  = Coefficient estimate for control variable of firm Leverage for models 1.....4

$\alpha_4, \gamma_4, \chi_4, Z_4$  = Coefficient estimate for control variable of firm Leverage for models 1.....4

$\mu_t, Z_t, y_t$  and  $q_t$  = Prediction error.

### Method of Data Analysis

To verify the effects of dividend policy on firm value we carried out a number of formal empirical tests. The research strategy is as follows. Using listed companies' data obtained from its annual reports deposited at the Nigerian Stock Exchange for year 2007-2016 we constructed a balanced panel. The study adopted Panel Least Square Regression technique to find coefficients that will be used to determine both impacts of variables under study. We used random and fixed effects estimation techniques, which allowed us to control for unobserved individual (firm-specific) effects. We employed Hausman test to establish if fixed or random effects specification was preferable. All the techniques mentioned above were employed to find coefficient estimates for the relationship between firm's value and its dividend policy in Nigeria.

### Operationalization of Research Variables

Variable	Specification	Measurement
<b>Tobin q</b>	Tobinq	Market value divided by book value of the sampled companies
<b>Dividend Coverage</b>	divcov	Earnings per share divide by dividend per share.
<b>Dividend Yield</b>	divy	Annual dividend divided by Current Stock Price
<b>Dividend Increase</b>	divinc	Measured as Dummy such that if firm increase dividend = '1' otherwise = 0
<b>Firm Size</b>	fsize	Natural log of the total assets which was measured as a control variable and employed as a control variable
<b>Leverage</b>	flev	Total liabilities / Total assets and employed as a control variable
<b>Firm Age</b>	fage	Difference between the year of listing on the stock exchange and current year of study and employed as a control variable.

Author Compilation 2018

## DESCRIPTION AND EMPIRICAL RESULT

### Data Presentation

The study analyses the relationship between dividend policy and firm value employing data samples from consumer and manufacturing listed companies from the Nigerian Stock Exchange for the periods of 2017 – 2016. In finding the possible firm's specific characteristics and exogenous factors that would influence firm's value, some analysis such as: Descriptive Statistics, Correlation Matrix, and Panel Least Square Regression analysis were conducted. The results obtained from these analyses are presented as follows.

**TABLE 4.1 Descriptive Statistics**

. summarize tobinq cdp divy divcov divinc divdecr fleve fsize fage, separator (0)

Variable	Obs	Mean	Std. Dev.	Min	Max
tobinq	112	3.543571	4.411291	.72	43.01
cdp	112	47.26384	50.70797	-155.37	253.4
divy	112	2.640893	2.748568	0	15.01
divcov	112	18.65366	153.3595	-68.12	1577.29
divinc	112	.3660714	.4838944	0	1
fleve	112	64.88161	32.13977	17.51	224.11
fsize	112	7.600179	.5332207	5.51	8.56
fage	112	31.28571	11.61812	1	51

**Author Computation 2018**

The statistics descriptive statistics above shows that cash dividend was not paid by some companies during the period of analysis. The companies include International Breweries Plc, Nascon Allied Plc, Pz Cusson Plc and Uniliver Plc during the period of analysis. The average dividend payout is N47.20 during the period of analysis. This can be said to be fair and commendable for the Nigerian Stock Exchange. Dividend yield ratio has a mean of 2.64 with a standard deviation of 2.74, indicates a consistent dividend distribution of the company and less risky. However, the highest payout for the period of analysis is 253.40 and was paid by Nestle Plc in year 2016. This could be indicative of a good business outlook for the year 2007. The descriptive statistics result show that the oldest firm in our sample is Guinness Nigeria Plc whose age is fifty-one (51) and Tiger branded company is revealed to be the youngest company at the time of this analysis. Dividend yield which is a financial ratio that shows how a company pays out in dividend every year in relation to its share price had an average value of N2.64kobo and a minimum value of N0.00kobo of which the later indicates that some companies in the sample did not pay dividend at some point during the period of analysis. The statistics table shows that on the average most of the companies in the sample increased its cash dividend payout by 36kobo.

**TABLE 4.2 Tests for Data Normality**

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr (Skewness)	Pr (Kurtosis)	adj chi2 (2)	joint Prob>chi2
tobinq	112	0.0000	0.0000	12.12	0.0000
cdp	112	0.0396	0.0001	15.30	0.0005
divy	112	0.0000	0.0002	33.21	0.0000
divcov	112	0.0000	0.0000	14.11	0.0000
divinc	112	0.0163	0.0000	12.17	0.0000
fleve	112	0.0000	0.0000	54.84	0.0000
fsize	112	0.0000	0.0002	29.09	0.0000
fage	112	0.0006	0.6885	10.37	0.0056

**Author Computation 2018**

The test for normality of data show that all the variables under consideration are normally distributed at 1% level of significance except for the variables of dividend policy (cdp) and firm age (fage) which showed significance at 5% hence the possibilities and consequences of data outlier is eliminated.

In testing for the cause-effect relationship between the dependent and independent variables in the models of cash dividend, dividend yield, dividend coverage, and dividend increase, the two widely used panel data regression estimation techniques (fixed effect and random effect) were adopted. The table above presents the two panel data estimation techniques results. The results revealed difference in the magnitude of the coefficients, signs and the number of significant and insignificant variables. The estimation of the fixed effect panel regression was based on the assumption of no correlation between the error term and explanatory variables, while that of the random effect, considers that the error term and explanatory variables are correlated. In selecting from the two panel regression estimation results, the Hausman test was conducted and the test is based on the null hypotheses that the random effect model is preferred to fixed effect model. A look at the p-value of the Hausman test in all four models of 0.000 implies that we should reject the alternative hypothesis. This implies that we should adopt the random effect panel regression results in drawing our conclusion and recommendations. This also implies that the random effect results tend to be more appealing statistically when compared to the fixed effect.

**Table 4.3 Panel Ordinary Least Square Regression Analysis**

Var.	Model 1		Var.	Model 2		Var.	Model 3		Var.	Model 4	
	F- Effects	R- Effects		F- Effects	R- Effects		F- Effects	R- Effects		F- Effects	R- Effects
<b>Cdp</b>	0.005 (0.660) {0.510}	0.010 (1.340) {0.179}	<b>divy</b>	-0.404 (-2.720) {0.008}	-0.279 (-1.810) {0.071}	<b>divcov</b>	-0.000 (-0.160) {0.870}	-0.001 (-0.470) {0.641}	<b>divinc</b>	-0.475 (-0.700) {0.484}	-0.526 (-0.740) {0.459}
<b>Flev</b>	-0.040 (-3.560) {0.001}	-0.022 (-1.690) {0.091}	<b>flev</b>	-0.046 (-3.880) {0.000}	-0.029 (-2.300) {0.022}	<b>flev</b>	-0.044 (-3.540) {0.001}	-0.027 (-2.060) {0.040}	<b>flev</b>	-0.044 (-3.600) {0.001}	-0.028 (-2.110) {0.035}
<b>Fsize</b>	-14.255 (-9.630) {0.000}	-7.749 (-6.730) {0.000}	<b>fsize</b>	-14.731 (-10.240) {0.000}	-8.755 (-7.370) {0.000}	<b>fsize</b>	-14.227 (-9.600) {0.000}	-8.584 (-7.150) {0.000}	<b>fsize</b>	-14.214 (-9.620) {0.000}	-8.573 (-7.160) {0.000}
<b>Fage</b>	0.623 (4.490) {0.000}	0.125 (2.120) {0.034}	<b>fage</b>	0.703 (5.28) {0.000}	0.195 (2.590) {0.003}	<b>fage</b>	0.639 (4.650) {0.000}	0.175 (2.660) {0.008}	<b>fage</b>	0.629 (4.590) {0.000}	0.176 (2.680) {0.007}
<b>Cons</b>	94.865 (10.020) {0.000}	59.397 (7.020) {0.000}	<b>cons</b>	99.581 (10.610) {0.000}	66.540 (7.690) {0.000}	<b>cons</b>	94.525 (9.970) {0.000}	64.955 (7.430) {0.000}	<b>cons</b>	94.939 (10.020) {0.000}	66.071 (7.460) {0.000}
<b>R-Sq</b>	<b>0.508</b>	<b>0.451</b>	<b>R-Sq</b>	<b>0.541</b>	<b>0.488</b>	<b>R-Sq</b>	<b>0.506</b>	<b>0.462</b>	<b>R-Sq</b>	<b>0.508</b>	<b>0.467</b>
<b>AdjR-Sq</b>	<b>0.109</b>	<b>0.217</b>	<b>AdjR</b>	<b>0.107</b>	<b>0.208</b>	<b>AdjR-</b>	<b>0.105</b>	<b>0.197</b>	<b>Adj R-</b>	<b>0.108</b>	<b>0.199</b>
<b>F Stat</b>	<b>24.76</b>	<b>49.50</b>	<b>F Stat</b>	<b>28.27</b>	<b>59.58</b>	<b>F Stat</b>	<b>24.56</b>	<b>54.65</b>	<b>F Stat</b>	<b>24.79</b>	<b>55.12</b>
<b>Prob. F</b>	<b>0.000</b>	<b>0.000</b>	<b>Prob. F</b>	<b>0.000</b>	<b>0.000</b>	<b>Prob.</b>	<b>0.000</b>	<b>0.000</b>	<b>Prob.</b>	<b>0.000</b>	<b>0.000</b>
<b>Hausman 0.000</b>			<b>Hausman 0.000</b>			<b>Hausman 0.000</b>			<b>Hausman 0.000</b>		

Authors Computation 2018

### MODEL 1 (DIVIDEND POLICY)

The adjusted R Squared of the panel regression model is 0.21 indicating that 21% of the changes in firm value as defined by tobin q is explained by the changes in its examined explanatory variables. The wald chi<sup>2</sup> statistics (49.50) and its p-value (0.000) show that the dividend policy panel random regression model is generally significant and well specified. This implies that the model passed the overall significance test at the 1% level. In addition to the above, the specific findings from each explanatory variable from the random effect panel regression models are provided as followings:

The random panel effect model presented above show that only the variables of firm age (fage) (coef. 0.125 P >/t/ 0.034) and firm size (fsize) (coef. -7.749 P >/t/ 0.034) passed the statistical significance test at 1% and 5% respectively. From the regression result the variable of firm leverage showed a negative and insignificant relationship with firm value. This suggests that

the capital structure of the sampled firms is inversely related to firm value but is statistically insignificant. The key variable of cash dividend policy showed a positive but insignificant relationship with the dependent variable of firm value. (Coef.0.010  $P > /t/ 0.179$ ) suggesting that a unit increase in cash dividend pay will lead to 0.010 increase in firm value of the sampled companies in Nigeria. However, this relationship should not be taken with keen interest since it is statistically insignificant even at 10% level. This result is in accordance with the findings of Adelegun (2003), Nyamugnre (2015) but negates the findings of Hashemijoo (2015), Miko and Kamardin (2015) M'rabet and Boujjat (2015) and Ozuomba (2016). Based on the forgoing result we accept the null hypothesis of no significant relationship between dividend policy and firm value among listed consumer and conglomerate companies in Nigeria.

### **MODEL 2 (DIVIDEND YIELD)**

The adjusted R Squared of the panel regression model is 0.197 indicating that about 20% of the changes in firm value as defined by tobin q is explained by the changes in its examined explanatory variables. The wald chi<sup>2</sup> statistics (54.65) and its p-value (0.000) show that the dividend policy panel random regression model is generally significant and well specified. This implies that the model passed the overall significance test at the 1% level. In addition to the above, the specific findings from each explanatory variable from the random effect panel regression models are provided as followings:

The random panel effect model presented above show that only the variables of firm age (fage) (coef. 0.195  $P = /t/ 0.003$ ) and firm size (fsize) (coef. -8.755  $P = /t/ 0.000$ ) and firm leverage flev (coef. -0,029  $P = 0.002$ ) passed the statistical significance test at 5%, 1% and 5% respectively. From the regression result the variable of firm leverage showed a negative and significant relationship with firm value. This suggests that the capital structure of the sampled firms is inversely related to firm value and it is statistically significant. In this model the key variable of dividend yield showed a negative but insignificant relationship with the dependent variable of firm value. (Coef.0.028  $P > /t/ 0.071$ ) suggesting that a unit increase in dividend yield will lead to 0.279 decrease in firm value of the sampled companies in Nigeria. A negative coefficient means that the independent variable is moving in an opposite direction such that if dividend yield goes up, the variable of firm value is more likely to drop. Thus, high valued firms cannot maintain positive dividend yield hence may not be able to disburse cash in the form of dividends. The negative relationship is consistent with the study of Denis et al (1994) whose findings suggested a negative correlation between dividend yield and firm value. This significance is tested at 1 percent level of significance. This ratio that measures how much cash flow an investor receives for each naira invested in an equity position did not conform to the empirical finding of Hashemijoo (2012). The impact of firm size is significant at 1 percent, but has a negative slope. The negative coefficient indicates that, the larger the firm, the more likely that shareholders value will shrink. Based on the forgoing result we carefully accept the null hypothesis of no significant relationship between dividend yield and firm value among listed consumer and conglomerate companies in Nigeria.

### **MODEL 3 (DIVIDEND COVERAGE)**

The adjusted R Squared of the panel regression model is 0.197 indicating that about 20% of the changes in firm value as defined by tobin q is explained by the changes in its examined explanatory variables. The wald chi<sup>2</sup> statistics (54.65) and its p-value (0.000) show that the dividend policy panel random regression model is generally significant and well specified. This implies that the model passed the overall significance test at the 1% level. In addition to the above, the specific findings from each explanatory variable from the random effect panel regression models are provided as followings:

The random panel effect model presented above show that only the variables of firm age (fage) (coef. 0.175  $P = /t/ 0.008$ ) and firm size (fsize) (coef. -8.584  $P = /t/ 0.000$ ) and firm leverage

flev (coef. -0.027 P = 0.040) passed the statistical significance test at 5%, 1% and 5% respectively. From the regression result the variable of firm leverage showed a negative and significant relationship with firm value. This suggests that the capital structure of the sampled firms is indirectly related to firm value and it is statistically significant. In this model the key variable of dividend coverage showed a negative but insignificant relationship with the dependent variable of firm value. (Coef. -0.001 P > /t/ 0.641) suggesting that a unit increase in dividend coverage will lead to 0.001 decrease in firm value of the sampled companies in Nigeria. A negative coefficient shows that the dependent variable is moving in an opposite direction such that when dividend coverage goes up, the variable of firm value is more likely to drop. This significance is tested at 5 percent level, revealing that dividend coverage have no significant impact on dividend yield. This finding did not conform to the empirical finding of Christopher (2009), Hoot & Johnson (2016), Hinks & Gregory (2013). The impact of firm size is significant at 1 percent, but has a negative slope. The negative coefficient suggests that, the larger the firm, the more likely that shareholders value will shrink. Based on the forgoing result we carefully accept the null hypothesis of no significant relationship between dividend coverage and firm value among listed consumer and conglomerate companies in Nigeria.

#### **MODEL 4 (DIVIDEND INCREASE)**

The adjusted R Squared of the panel regression model is 0.199 indicating that about 20% of the changes in firm value as defined by tobin q is explained by the changes in its examined explanatory variables. The wald chi<sup>2</sup> statistics (55.12) and its p-value (0.000) show that the dividend policy panel random regression model is generally significant and well specified. This implies that the model passed the overall significance test at the 1% level. In addition to the above, the specific findings from each explanatory variable from the random effect panel regression models are provided as followings:

The random panel effect model presented above show that only the variables of firm age (fage) (coef. 0.176 P = /t/ 0.007) and firm size (fsize) (coef. -8.57 P = /t/ 0.000) and firm leverage (flev) (coef. -0.028 P = 0.035) passed the statistical significance test at 5%, 1% and 5% respectively. From the regression result the variable of firm leverage showed a negative and significant relationship with shareholders' value. This suggests that the capital structure of the sampled firms is not directly related to firm value and it is statistically significant. In this model the key variable of dividend increase showed a negative insignificant relationship with the dependent variable of firm value. (Coef. -0.526 P > /t/ 0.459) suggesting that policies that increases cash dividend among listed companies in Nigeria, produces a 0.526 decrease in firm value. This significance is tested at 5 percent level of significance, revealing that dividend increase have no significant impact on stock price. This finding did not support the result of Al-Yahyaee et al. (2011) who conducted the research on Omani listed firms and suggested that announcements of increases in cash dividends result in a significant positive share price reaction, while decreases of cash dividends have a negative effect on share price. The impact of firm size is significant at 1 percent, but has a negative slope. The negative coefficient suggests that, the larger the firm, the more likely that share price will shrink. Based on the forgoing result we carefully accept the null hypothesis of no significant relationship between dividend increase and firm value among listed consumer and conglomerate companies in Nigeria.

#### **SUMMARY AND CONCLUSION**

This study focused on the relationship between dividend policy and firm value. The study adopted multiple regression models to examine the impact of various dividend policies component on the value of the firm. Findings revealed that policy components such as dividend yield, dividend coverage and dividend increase showed insignificant negative relationship with shareholders' value. This finding suggest that increasing the magnitudes of these factors have not yielded positive improvements on firm value/shareholders wealth among consumer and

manufacturing firms in Nigeria during the period of analysis. Instead, these variables showed a negative relationship with firm value. However, the analysis revealed that the relationship is insignificant hence may not be sufficient enough for policy recommendations.

The positive relationship between dividend policy and firm value is an indication that company seeks to please its shareholders by paying more dividend rather than improving their capital gain or plough back most of its earnings as retained earnings. Unfortunately, this policy as adopted by consumer and manufacturing sector in Nigeria has remained insignificant in improving the value of the firm that may have been reflected through its stock price. This study thus confirms the assertion by Black (1976) and the Miller and Modigliani (1961) dividend irrelevance theory that the harder we look at the dividend picture; the more it seems like a puzzle, with pieces that just don't fit together. Hence, the findings of the present study thus agree with most of the dividend irrelevant proponents that views dividend policy as irrelevant to firm value.

From the foregoing, the author carefully recommends that managers among listed consumer and manufacturing companies should adopt dividend policies that suit their investors' needs. They should review the opinions of their core investors in deciding dividend policy that meets with the expectations of its shareholders. By introducing new varied dividend policies, firm value can be maximized. The preference of shareholders towards income and investment should be understood and the dividend policies should be framed accordingly, for such shareholders. This strategy could assist these companies to gain both the benefit of increased shareholders satisfaction on one hand and increased firm value on the other hand, while also savings for future business expansion and capital gains. This in turn, will promote the growth and profitability of the consumer and manufacturing industries in Nigeria.

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