

Dividend Clientele Hypothesis: An Empirical Test in Emerging Nigeria Financial Market

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Abstract

This study tested the dividend clientele hypothesis of Modigliani and Miller using panel data of quoted manufacturing firms in Nigeria. The purpose was to investigate how dividend clientele effect relates to share prices. The estimated regression model found that changes in dividend payout ratio, retained earnings and tax explained 73.9 percent variation in stock prices of the quoted manufacturing firms. Correlation and multiple regressions were used to test the relationship between variables. Cross sectional data were sourced from financial statement and annual reports of the firms. Based on the analysis of fixed and random effect results, fixed effect was used. From the findings, the study concludes that variation in dividend payout ratio, retained earnings and income tax positively affects the stock prices of the quoted manufacturing firms. The study recommends that relevant authorities should ensure dividend policy framework that will positively affects the share prices of the quoted manufacturing firms.

Keywords: *Dividend Clientele Hypothesis, Financial Market, Dividend Payout Ratio, Retained Earnings, Tax*

Introduction

Corporate organization is made up of different classes of investors ranging from age and income level. Clientele effect is a concept that relate to movement in a company's stock price according to the demands and goals of its investors which comes in reaction to tax, dividend, corporate financing and other policy change or corporate action which affects a company's shares. The concepts assumes that specific investors are preliminarily attracted to different company policies, and that when a company alters one or more such policies they will adjust their stock holdings accordingly. As a result of this adjustment, stock prices can fluctuate. The clientele effect assumes investors are partial to a company's policies and that changes will result in the purchase or sale of the underlying company's stock based upon the investor's preferences (Farrar and Selwyn, 1967).

The Modigliani-Miller theorem establishes that in perfect capital markets (i.e., without taxes, transaction or bankruptcy costs, or asymmetric information) a firm's dividend policy does not affect its value (Modigliani and Miller 1958). In this setting, investors can replicate any stream of dividend payments through the purchase and sale of appropriate equities. Thus,

investors view dividend policies as irrelevant and will not pay a premium for any particular policy. However, when investors face different dividend and capital gains tax rates, they have different after-tax valuations for the same asset. Miller and Modigliani hypothesize that such differences lead to the formation of what they termed dividend clienteles in which investors have tax-based preferences over equities that differ only in their dividend policies (Miller and Modigliani 1961).

Behavioral responses like the clientele effect carry important consequences for the impacts of tax policy on the distribution of tax burdens, especially as equity holdings have historically been concentrated in the upper tail of income distribution. Moreover, if policymakers ignore dividend clientele effects, their estimates of the revenue that will be generated by changes in capital tax rates will be off-base. Dividends and capital gains generally face different tax rates and these rates vary across individuals, an equity security provides different after-tax returns for individuals facing different tax rates. Miller and Modigliani (1961) hypothesize that such heterogeneity leads to what they termed a dividend clientele effect; investors naturally sort into equity holding classes based on their dividend payout ratios. According to the dividend clientele hypothesis, firms with high (low) dividend-payout ratios attract investors with low (high) marginal tax rates. In the aggregate, an individual's portfolio dividend yield, the ratio of dividend income to the value of equity holdings decreases with income.

Clientele groups comprise institutional investors and retail investors. Institutional investors are organizations that trade securities in large quantities. Examples of institutional investors are pension funds and life insurance companies. Retail investors on the other hand are individual investors who buy and sell securities for their personal account, and not for another company or organization. Retail investors are further categorized as local and foreign individual investors (Irfan & Nishat, 2002). Accordingly the shareholders of the firms trading stocks at the NSE are either institutional or individual investor clienteles. Miller and Modigliani (1961) admitted the possibility of clientele effects linked to dividends distributions, but they assert that if the distribution of the firms' payout ratios corresponds exactly to the distribution of the investors' preferences, then the situation is not different from the case of perfect markets, where it is irrelevant for investors to receive dividends or capital gains. Capital gains tax rates were reduced. Second, dividend income was now taxed at the same rates as capital gains, rather than ordinary income. Together, these changes greatly reduced the tax disadvantage of dividend income and, importantly, did so by a relatively larger amount for high-income individuals.

There are different strands of studies on factors that determine of share prices around the world. Oyama (1997) investigated the relationship between macroeconomic variables and of share prices for companies in Zimbabwe stock exchange from 1993 to 1994, Irfan and Nishat (2002) investigated the fundamental factors affecting long-run price movement, Nirmala et al. (2011) used time series data from 2000 to 2009 from auto and healthcare sectors, Aurangzeb (2012) examined the factors that affect the share prices using a panel data from 1997 to 2010 from Pakistan, India and Sri Lanka, Malhotra and Tandon (2013) investigated the factors influencing share using a panel data of 95 firms for the period of 2007-2012 listed in National stock exchange, Gatua (2013) used a panel of data from made up of a sample of firms from seven sectors listed on Nairobi securities exchange from 2008-2012, Almunani (2014) investigated the determinants of share prices using listed banks firm in Amman stock exchange from 2005 to 2011. Lucky, Akani and Anyamaobi (2015) examined prudential

determinants of stock prices of commercial banks in Nigeria while Akani and Lucky (2014) examined money supply and aggregate stock prices in Nigeria, Njoroge (2001) examined relationship between dividend 5 payout and some financial ratios; Onyangoh (2004) investigated the responses of stock prices to earnings announcements; Kiio (2006) investigated market efficiency and effects of cash dividend announcements on share prices; Ngunjiri (2010) studied the relationship between dividend payment policies and stock price volatility and Mbuki (2010) studied factors that determine dividend payout ratio among SACCOs in Kenya. None of the studies focused on the clientele effect and stock prices. This study therefore focused on the clientele effect and share prices of quoted firms in Nigeria.

Literature Review

Stock Price

Market share price is defined as the price which the market assigns to the company's stocks. Stock price volatility represents the variability of stock price changes could be perceived as a measure of risk faced by investors. Shiller (1981) argued that stock prices are more volatile than what is justified by time variation in dividends. Numerous studies have documented evidence showing that stock returns exhibit phenomenon of volatility clustering, leptokurtosis and asymmetry. Volatility clustering occurs when large stock price changes are followed by large price changes, of both signs, and small price changes are followed by periods of small price changes (Mande 1963; Fama, 1974; Black, 1976). Ajao (2012) noted that a number of recent studies have sought to characterize the nature of financial market return process, which has always been described as a combination of drift and volatility.

Volatility may impair the smooth functioning of the financial system and adversely affect economic performance (Rajni & Mahendra, 2007; Mollah, 2009). Stock price volatility is an indicator that is most often used to find changes in trends in the market place. Stock price volatility tends to rise when new information is released into the market, however the extent to which it rises is determined by the relevance of that new information as well as the degree in which the news surprise investors. However, economists and financial experts have propounded theories on what causes volatility. Some financial economists see the causes of volatility embedded in the arrival of new, unanticipated information that alter expected returns on a stock (Engle, 1982). Others claim that volatility is caused mainly by changes in trading volume, practices or patterns which in turn are driven by factors such as modifications in macroeconomic policies, shift in investors' tolerance of risk and increased uncertainty (Rajni & Mahendra, 2007).

These characteristics are perceived as indicating a rise in financial risk, which can adversely affect investors' assets and wealth. For instance, volatility clustering makes investors more averse to holding stocks due to uncertainty. Firm-level stock return volatility is important for both managers and shareholders. First, high volatility increase a firm's perceived riskiness, thereby raising its cost of capital (Froot, Perold & Stein 1992). Second, high volatility could affect the various agency relationships in the firm, exacerbating conflicts between stockholders and bondholders and hindering resolution of stockholder-management problems (Bainian & Verrecchia 1995). Third, research suggested that investment strategy based on volatility can earn statistically and economically significant abnormal returns (Hodrick, Xing & Zhang 2006).

Tax-Effect Hypothesis

The M & M assumptions of a perfect capital market exclude any possible tax effect. It has been assumed that there is no difference in tax treatment between dividends and capital gains. However, in the real world taxes exist and may have significant influence on dividend policy and the value of the firm. In general, there is often a differential in tax treatment between dividends and capital gains, and, because most investors are interested in after-tax return, the influence of taxes might affect their demand for dividends. Taxes may also affect the supply of dividends, when managers respond to this tax preference, in seeking to maximize shareholder wealth (firm value) by increasing the retention ratio of earnings. The tax-effect hypothesis suggests that low dividend payout ratios lower the cost of capital and increase the stock price. In other words low dividend payout ratios contribute to maximizing the firm's value. This argument is based on the assumption that dividends are taxed at higher rates than capital gains. In addition, dividends are taxed immediately, while taxes on capital gains are deferred until the stock is actually sold. These tax advantages of capital gains over dividends tend to predispose retain most of investors, who have favorable tax treatment on capital gains, to prefer companies that their earnings rather than pay them out as dividends.

Clientele Effects of Dividends Hypothesis

In their seminal paper M & M (1961) noted that the pre-existing dividend clientele effect hypothesis (hereafter DCH) might play a role in dividend policy under certain conditions. They pointed out that the portfolio choices of individual investors might be influenced by certain market imperfections such as transaction costs and differential tax rates to prefer different mixes of capital gains and dividends. M&M argued that these imperfections might cause investors to choose securities that reduce these costs. M&M termed the tendency of investors to be attracted to a certain type of dividend-paying stocks a "dividend clientele effect.

Nonetheless, M & M maintained that even though the clientele effect might change a firm's dividend policy to attract certain clienteles, in a perfect market each clientele is as good as another hence the firm valuation is not affected; that is, dividend policy remains irrelevant. In practice, investors often face different tax treatments for dividend income and capital gains, and incur costs when they trade securities in the form of transaction costs and Inconvenience (changing portfolios). For these reasons and based on different investors' situations, taxes and may create investor clienteles, such as tax minimization induced clientele and transaction cost transaction costs minimization induced clientele respectively. These clienteles will be attracted to firms that follow dividend policies that best suit their particular situations. Similarly, firms may tend to attract different clienteles by their dividend policies. For example, firms operating in high growth industries that usually pay low (or no) dividends attract a clientele that prefers price appreciation (in the form of capital gains) to dividends.

The Modigliani Miller Hypothesis

The underlying rationale for the Modigliani-Miller theory is that the value of the firm is determined solely by the left hand side of the balance sheet which reflects the company's investments policy (Drobez and Fix, 2003). The theory suggests that the value of the firm tends to be independent of the debt balance of the company and instead, it is mainly affected by the presence of a number of project investments with positive net present value. Modigliani-Miller assumes that investors have the same financial information about a firm with that of the managers, which can be referral to as systematic informatics but in practice, it is more convenient to assume that manager are likely to have insider information which is

simply called asymmetric information (Tekker, et al, 2009). Myers and Majluf (1984) confirmed that managers of firm have superior information about the actual value of the firms.

In their path-breaking paper in 1958, Nobel Laureates Merton Miller and Franco Modigliani provided the formal proof of their now famous M &M irrelevance propositions. Thus, the MM theory states that, based on the assumption of no brokerage, tax and bankruptcy costs, investors can borrow at the same rates as corporations and they would tend to have the same information as management about the firms future investment opportunities. There are two propositions.

MMI or Proposition I: According to Modigliani and Miller, quoting Pandey (2000), the firm's market value is not affected by capital structure: that is, any combination of debt and equity is as good as any other. In M-M's world of perfect capital market, because of borrowing and lending rates for all investors and no taxes, investors can borrow their own.

MMII or Proposition II: Here Modigliani and Miller accept that borrowing increases shareholders return. They show that increased risk exactly offsets the increased return, thus leaving the position of shareholders unchanged.

Clientele Effect Theory

The clientele effect is a theory which describes the intention of investors to invest in firms which suits their factor endowments; among the most common ones is their tax circumstance. It can be said that there is an inverse relationship between stock returns (dividends) and tax levels. For instance, an investor in a high tax bracket would prefer to invest in stock giving a low rate of return so as to pay less tax. On the other hand, an investor in a low tax bracket would definitely invest in stocks with higher returns as he currently does not have a large tax liability. Pettit (1977) showed that older investors (retired persons) were more likely to hold high dividend shares because they pay lower income tax. In this case we call it the tax clientele effect. Hence the clientele effect refers to firms making their dividend policy decision based the customers they would like to attach to themselves (Litzenberger & Ramasawmy, 1979).

The clientele effect further supports the proposition that the dividend policy does not affect the value of the stock because investors obtain income from the shares in their preferred way. Clientele effects could arise from non-tax considerations including informational advantages, distinct investment styles, or monitoring ability. Institutions may be better informed and this informational advantage could be manifested in differing attitudes towards payout policy. Amihud and Li's (2006) study of the relation between price reactions to dividend announcements and institutional holding provides evidence that institutions are more informed.

Del Guercio (1996) examines the role of dividends in the portfolio selection of banks and mutual funds, and finds that dividend yield has no power in explaining the portfolio choice of these institutions. Her evidence suggests that the prudent-man rule has an important role, but that dividends do not play a major role in the institutional investor portfolio decision. On the other hand, Dhaliwal, Erickson, and Trezevant (1999) provided empirical evidence that after dividend initiation, firms' institutional investor clientele changes based on their tax preferences, with a surge in ownership by tax-exempt/tax-deferred and corporate investors.

Hotchkiss and Lawrence (2007) reported that institutions have distinct investment styles based on dividend yields.

The Signaling Theory

The signaling theory of dividends states that managers use dividend policy to send signals about the firm's future earnings (Bhattacharya, 1979; Miller and Rock, 1985; John and Williams, (1985). This theory is based on the assumption that information is not equally available to all 10 parties at the same time, leading to information asymmetry rule. This states that the markets will be more efficient if sellers provided more information to the buyers. This theory is applied in the financial markets for instance a company increasing its dividends is signaling that its prospects are better. Signal theory is based on the premise that the management of a company knows more about the future earnings prospects of a company than do the stockholders. According to the theory if a company declares dividends more than that anticipated by the market, this will be interpreted that the future financial prospects of the company will be good.

Conversely, if a company cuts its dividends the markets take this as a signal that the management expects poor earnings and does not believe that the current earnings will be maintained. The market price of a firm will drop when dividend falls because investors will sell their stocks in anticipation of difficult times for the firm (Miller & Rock, 1985). Linter, 1956 argues that if a firm's manager believes in signaling theory he would be wary of the signal their dividend signal may send to the investors. Even if the firm has some interesting investment opportunities that could be financed with retained earnings, management would seek alternative financing to avoid cutting dividends that may send an unfavorable signal to the market.

Dividend Irrelevance Theory

This was founded by Miller and Modigliani (1961) when they published a theoretical paper showing the irrelevance of dividend policy in a world without taxes, transaction costs or market imperfections. The theory suggests that, in a perfect world, dividends are irrelevant when the value of the stock and, therefore, of the firm is determined. The theory implies that retained earnings belong to the shareholders of the company and shareholders are not concerned whether money is used to pay out dividends or for investment purposes because they benefit either way by receiving dividends or via share price appreciation. If investors will require cash, they can always sell a few of the shares which increased in value due to investments. Miller and Modigliani also suggest that the clientele effect exists.

This refers to the tendency for investors to hold stocks which are in line with their dividend payment preferences. Investors who prefer regular dividends hold stocks of the companies which provide such dividends and investors who prefer for funds to be reinvested and to be reflected in the share appreciation hold those stocks that are aligned with such preferences. The payout decision is irrelevant because it neither creates nor destroys value for shareholders. If the investment decision is held constant, higher dividends result in lower capital gains, leaving the total wealth of shareholders unchanged. They stated that because investors do not need dividends, to convert their shares into cash they will not pay higher prices for firms with high dividend payout. In other words payout policy will have no impact on the value of the firm. However in real world situations there are market imperfections such as taxation effects, transaction costs, asymmetric information and agency cost which affect

shareholders value. Lintner, 1956 and Brav et al., 2005 have shown that a firm's dividend policy might impact on the value of the firm.

Empirical Review

Nwala, Gimba and Oyedokun (2020) examined the impact of corporate financial policy on firm value of insurance firms in Nigeria for the period 2011 to 2017. In carrying out this study, ex-post-facto research design was employed and secondary data sourced from 25 insurance annual report and Nigeria Stock Exchange factbook for the period of 7 years. Pool time series data were extracted related to dividend payout, equity issuance, debt asset, equity asset, return on asset and Tobin Q was used as proxies for firm value in this study. The findings indicate that dividend payout and equity issuance have significantly impacted on firm performance (Tobin Q), the study also stated that ROA has no significant relationship with dividend payout, equity asset, debt assets and equity issuance during the period under study. It was recommended that insurance managers should devote adequate time in designing a dividend policy that will enhance firm's performance (ROA) and shareholder value. Again, the company should review its dividend policy in order to reduce agency cost and maximize the value of the company.

Okeke (2019) examined the effect of capital structure on firm value of selected quoted firms in Nigeria. It adopted long term debt, equity capital, as independent (x) variables of capital structure while Tobin Q was used as proxy for firm value the dependent variable. It adopted ex-post facto research design. The statistical package used for the analysis was e-view version 8.0. The population of the study was firms drawn from conglomerate and consumer goods sectors of Nigeria Stock exchange for a period of nine (9) years 2007-2015. Descriptive statistics, correlation and ordinary least square (OLS) of multiple regression analysis were used to test the hypotheses formulated to guide the study. The coefficient of determination R^2 showed that 65% systematic variations in firm value could be explained by the independent variables. The F value (62.44647) was significant at 1% which means that the parameters estimated were statistically significant in explaining the effect of the independent variables on the dependent variable. The study therefore, concluded that capital structure with regard to long term debt was negatively but statistically significant to firm value, while equity capital was positively insignificant to firm value. The study recommended that firms should be more concerned with management of equity capital in business financing since it is more related to the value of the firm.

Uzokwe (2019) examined the effect of debt financing on the financial performance of quoted firms in Nigeria stock exchange using time series data from 2000-2017. The objective was to examine the controversial findings of scholars on the effect of capital structure on corporate performance of firms. Return on assets and return on equity was modeled as the function of debt equity ratio, debt ratio, equity ratio, total liability ratio and long term debt ratio. Multiple regressions with the aid of statistical package for social sciences were used as data analysis techniques. Model one found that a correlation coefficient (r) of .872 this implies that a very strong correlation exists between return on assets and explanatory variables. The coefficient of determination (r^2) is .678 which shows that 67.8% of the variation in Return on Assets is attributable to the variations in the financial leverage. Also, the F- value calculated of 8.338 has a correlation corresponding value of .004 which implies a good model utility. The test of significance conducted as shown in the tables above states that ROA has a calculated value of 242.032 and a corresponding significance value/probability value of .014. The positive sign

of t-value (1.653) shows the direction of the variables. This therefore implies that when a financial leverage is well used, this leads to a better, reliable and fairer financial result that is objective and represent the true state of affairs in the food and beverage companies proportionately. Model two found that a correlation coefficient (r) of .772 this implies that a very strong correlation exists between return on assets and explanatory variables. The coefficient of determination (r^2) is .639 which shows that 63.9% of the variation in return on equity is attributable to the variations in the financial leverage. Also, the F- value calculated of 7.644 has a correlation corresponding value of .004 which implies a good model utility. The test of significance conducted as shown in the tables above states that ROE has a calculated value of 568.906 and a corresponding significance value/probability value of .003. The positive sign of t-value (3.310) shows the direction of the variables. This therefore implies that when a financial leverage is well used, this leads to a better, reliable and fairer financial result that is objective and represent the true state of affairs in the food and beverage companies proportionately.

Ndubuisi and Onyema (2019) examined the effects of financial leverage on the profit growth in Nigeria using the total debt to capital ratio, debt to equity ratio, cost of debt, debt to asset ratio and long term debt to capital ratios as proxies for financial leverage for a sample of 80 non-financial firms quoted on the Nigerian Stock Exchange over the period of 2000 to 2015. Data were analysed using the panel data regression analysis model which includes the pooled regression model, fixed effect model and the random effect model. The choice of the appropriate model between Fixed Effect and Random Effect is made using the Hausman Test. In accordance with the research findings, we conclude that financial leverage has significant effect on the profit growth of firms in Nigeria and also that there exist a significant relationship between the inflation rate and profit growth but the relationship with the interest and exchange rates on financial leverage of quoted companies in Nigeria. The nature of the relationship differs from one another, a positive relationship was reported for the total debt to capital ratio, debt to asset ratio and long term debt to capital ratios and a negative relationship for the debt to equity ratio and the cost of debt.

Lucky and Uzokwe (2020) tested Miller and Modigliani dividend policy irrelevant hypothesis in Nigeria. The objective was to examine the validity of the irrelevant hypothesis. Tobins Q measure of market value was modeled as the function of dividend payout ratio, retention ratio, dividend per share and dividend yield. 20 firms were selected on the basis of availability of information necessary for conducting the study and the readiness of annual financial reports for the period of 10 years from 2008-2017. Cross sectional data was sourced from financial statement and annual reports of the firms. Based on the analysis of fixed and random effect results, random effect was used. The study revealed that 75 percent variation on the market value can be predicted by variation on independent variables in the regression model. The beta coefficient of the variables found that all the independent variables have positive and significant relationship with market value of the selected quoted firms. The study concludes that dividend policy is relevant as oppose to the irrelevant hypothesis of Miller and Modigliani. Its therefore recommend that managers should manage their dividend policies effectively since it is relevant and has significant effect on market value and optimal dividend policy which implies policy of trade-off between dividend payout and retain earnings should be well managed and investors should have adequate knowledge of dividend policy of quoted firms that will correspond with their investment objectives of avoid conflict in dividend policy.

Enekwe, Nweze and Agu (2015) investigated the effect of dividend payout on the performance of quoted cement companies in Nigeria over twelve (12) years period from 2003 to 2014. The researcher employed Return on Capital Employed (ROCE); Return on Assets (ROA) and Return on Equity (ROE) as dependent variable Dividend Payout Ratio (DPR) represented the independent variable. The study concluded that dividend payout ratio (DPR) has significant relationship with ROCE and ROA while DPR has statistically insignificant relationship with ROE of quoted cement companies in Nigeria. Simon-Oke and Ologunwa (2016) analysed the impact of dividend payout policies on firm value for five firms listed on the Nigerian stock exchange from 2005 to 2015. They utilized Market price per share as proxy for firm value while measures of dividend payout were dividend per share and retained earnings per share. The study concluded that dividend per share significantly affect firm value while Retained earnings did not significantly affect firm value. None of the studies focused on the effect of clientele effect on share prices of quoted firms.

Methodology

The data used in this study were extracted from the income statement and balance sheet of 21 quoted manufacturing firms for the periods 2012 to 2021. In order to identify the effect of test of the clientele effect hypothesis. The regression analyses were used to analyse the relationship between the dependent and the independent variables. The panel regression equation is different from a regular time-series or cross section regression by the double subscript attached to each variable. The general form of the panel data model is specified as:

$$y_{i,t} = \alpha + \beta X_{i,t} + \varepsilon_{i,t} \quad 1$$

The subscript i denotes the cross-sectional dimension and t represents the time-series dimension. The left-hand variable y represents the dependent variable in the model which represents the value relevance of firms listed on the Nigeria Exchange, βx contains the set of explanatory variables in the estimation model, α and is taken to be constant overtime t and specific to the individual cross-sectional unit

Model Specification

$$SP = f(DPR, RE, TX) \quad 2$$

The regression models are thus formulated as

$$SP_i = \beta_0 + \beta_1 DPR_i + \beta_2 RE_i + \beta_3 TX_i + \varepsilon \quad 3$$

Where

| | | |
|-----|---|----------------------------------|
| SP | = | Stock price |
| DPR | = | Changes in dividend payout ratio |
| RE | = | Changes in retained earnings |
| TX | = | Tax effect |

Method of Estimation and Testing

Panel data regression model specifications

Panel data can be estimated and analyzed in three different specification models. These are the correlation matrices the Fixed Effect Model (FEM) and the Random Effect Model (REM). In this study the fixed effect model is chosen over pooled OLS regression because of the advantages the former has over the latter.

Pooled Regression Model

To obtain a reliable and unbiased estimated the analysis, this estimation method uses the classical linear regression assumptions which according to Albrigm Zappe and Winston, (2011) stipulate that the error term should be independently and normally distributed with zero mean and constant variance and more importantly must not correlated with the independent variables pooled OLS linear regression is given as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{4it} + U_{it} \quad 4$$

Where Y_{it} is the dependent variable; β_0 is a constant term: X_1 , to X_5 , are the independent variables; β_1 to β_4 are slope parameters: $i..n$ refers to the cross-sectional units and t is the time period. Using this regression specification, the model or this study is thus written as Gujarat; (2009) opined that pooled OLS regression model has the advantage of being the simplest, easy to understand and interpret as compared to the other models but the model is associated with some weaknesses. It assumes that cross-sectional units are homogeneous. This assumption may not be realistic. For example, the slope coefficients and intercept must be the same for all the banks that constitute cross-sectional units in this study. This may not be possible and it may be wrong to make this assumption. The error term is assumed to have taken care of the individual bank specific effects and the time components of data. Another weakness of pooled OLS regression may be the existence of autocorrelation in the model which results in errors and invalid conclusions.

The fixed effect model

The fixed effect mode is highly comparable to the pooled OLS regression model in the sense that the slope coefficient is the same for all cross sectional and that the intercept remains unchanged across time. One difference between them is that the fixed effect model recognizes heterogeneity among cross sectional units as against homogeneous units in the case of the pooled OIS regression model. Thus under the fixed effect model, individual specific effect of cross sectional units are captured (Batalgi 2005) in the study individual bank specific effects may innovation, policies, location, marketing strategies skills of workforce, clientele base etc Employing the fixed effect least-squares dummy variable (LSDV) approach the issue of heterogeneity is taken different intercepts for every cross sectional and (Brooks, 2008). The fixed model can be specified as

$$SP_{it} = \alpha_i + \beta_1 X_{1it} + \beta_2 X_{it} + \beta_3 X_{it} + U_{it} \quad 5$$

Where I in refers to the cross-sectional units representing the intercept value for each cross-sectional unit. Among other things, the fixed effect least-squares dummy variable (L.SDV) approach is limited by its inability to deal with large samples. It has been stated that larger number of cross sectional units results in a bigger decrease in the degree of freedom (Hsiao, 2006). But Batalgi (2005), believes that this issue is solved with the use of the fixed effect within-group estimator methodology.

A-Priori Expectation

Base on theories such as market efficiency theory and empirical results examined in this study, the variables are expected to have a positive effect on the dependent variables. The mathematical implication is stated as follows:

The mathematical implication is stated as follows:

$1 > 1 > 1 > 1 > 0$ Reject hypothesis

$1 < 1 < 1 < 1 < 0$ Accept hypothesis

$1 t > 1 t > 1 t > 1 t > 0$ Reject hypothesis

$1 t < 1 t < 1 t < 1 t < 0$ Accept hypothesis

ANALYSIS OF RESULTS AND DISCUSSION OF FINDINGS

Table 1: Fixed Regression Results

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|------------|-------------|------------|-------------|--------|
| D(SP(-1)) | 0.068412 | 0.086368 | 1.792100 | 0.0399 |
| D(DPR(-1)) | 0.046272 | 0.027841 | 1.661973 | 0.0492 |
| D(RE(-1)) | 0.017168 | 0.023551 | 2.728996 | 0.0075 |
| D(TX(-1)) | 0.032981 | 0.039764 | 1.829415 | 0.0186 |
| D(SP(-2)) | 0.096246 | 0.061489 | 2.565239 | 0.0202 |
| D(DPR(-2)) | 0.016295 | 0.026169 | 2.622659 | 0.0347 |
| D(RE(-2)) | 0.014130 | 0.024397 | 2.579174 | 0.0336 |
| D(TX(-2)) | 0.009897 | 0.038315 | 2.258304 | 0.0366 |
| C | 0.138780 | 0.076536 | 1.813266 | 0.0424 |
| ECM(-1) | -0.748646 | 0.096603 | -7.749693 | 0.0000 |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.732696 | Mean dependent var | 0.174626 |
| Adjusted R-squared | 0.692083 | S.D. dependent var | 1.068497 |
| S.E. of regression | 0.899010 | Akaike info criterion | 2.804860 |
| Sum squared resid | 94.56172 | Schwarz criterion | 3.415153 |
| Log likelihood | -176.1572 | Hannan-Quinn criter. | 3.052829 |
| F-statistic | 3.077199 | Durbin-Watson stat | 1.926514 |
| Prob(F-statistic) | 0.000010 | | |

Table 2: Correlated Random Effects - Hausman Test and VAR Lag Order Selection

Criteria

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|----------------------------------|-------------------|--------------|-----------|
| Cross-section random | 51.093111 | 9 | 0.0000 |
| VAR Lag Order Selection Criteria | | | |
| Lag | LogL | LR | FPE |
| 0 | -2545.251 | NA | 1.78e+08 |
| | | 120.4449 | |
| 1 | -2483.181 | * | 1.03e+08* |
| 2 | -2476.671 | 12.32364 | 1.15e+08 |
| | | | AIC |
| | | | 30.34823 |
| | | | SC |
| | | | 30.42261 |
| | | | HQ |
| | | | 30.37841 |
| | | | 29.95071 |
| | | | * |
| | | | 30.17168* |
| | | | 29.91275 |
| | | | 30.58217 |
| | | | 30.18443 |

Source: Computed from E-View output

The question which model is more appropriate FEM or REM is very difficult to answer. According to Judge et al, (1980) recommend a few suggestions which are related to the context of the data, and its environment beside the correlation between error component and regressions. If it is assumed to be uncorrelated, random effects may be appropriate, whereas if correlated, fixed effects are unbiased and then are more appropriate. The Hausman (1978) specification test can be used to determine the appropriate method of fixed or random effects

models. However, econometricians seem to be united generally that the random effects model is more appropriate to be used if individual are drawn randomly from a large population. By contrast, the FEM is more appropriate in the case of focusing on specific sets of the firms.

The Hausman test tests the null hypothesis that the coefficients which are estimated by the efficient random effects estimator are the same as the ones estimated by the consistent fixed effects estimator. Therefore, this includes insignificant P-value, $\text{Prob}>\chi^2$ larger than 0.05, then it is more suitable to use random effects. According to above table shows Hausman specification test the model has the value of $p=0.0000$ for the regression model of dependent and independent variables. This shows fixed effect model is more appropriate, because the null hypothesis is not accepted. Therefore, this includes insignificant P-value, $\text{Prob}>\chi^2$ larger than 0.05, then it is more suitable to use random effects. However, if we have a significant P-value, then we should use fixed effects models. The most popular of the information criteria are the Akaike information criteria (AIC), and Bayesian information criteria (BIC) (Stock and Watson, 2012). Since the value proposed by both AIC, HQIC is lag 1, the optimal lag length in this study is 1.

From the fixed effect as shown in the table 1, 69.2 percent variation on the dependent variable (stock prices of the quoted firms) can be predicted by variation on independent variables in the regression model formulated in this study. The remaining 30.8 percent can be traced to factors not captured in the regression model. Probability coefficient of f-statistics found the model is statistical significant. The regression intercept revealed that when other variables are held constant, the dependent variable will be 13.8 percent.

However, the beta coefficient of the variables found that three variables have positive effect on the share prices of the quoted firms. This implies that the clientele effect hypothesis is accepted as reviewed in the literature. the findings of the study is in line with the empirical findings of Nwala, Gimba and Oyedokun (2020) that dividend payout and equity issuance have significantly impacted on firm performance (Tobin Q), stated that ROA has no significant relationship with dividend payout, equity asset, debt assets and equity issuance during the period under study, the findings of Okeke (2019) that 65% systematic variations in firm value could be explained by the independent variables and that capital structure with regard to long term debt was negatively but statistically significant to firm value, while equity capital was positively insignificant to firm value. The study recommended that firms should be more concerned with management of equity capital in business financing since it is more related to the value of the firm.

The findings is supported by Uzokwe (2019) that when a financial leverage is well used, this leads to a better, reliable and fairer financial result that is objective and represent the true state of affairs in the food and beverage companies proportionately. Model two found that a correlation coefficient (r) of .772 this implies that a very strong correlation exists between return on assets and explanatory variables and the findings of Ndubuisi and Onyema (2019), Lucky and Uzokwe (2020) that dividend policy is relevant as oppose to the irrelevant hypothesis of Miller and Modigliani and the findings of Enekwe, Nweze and Agu (2015) that dividend payout ratio (DPR) has significant relationship with ROCE and ROA while DPR has statistically insignificant relationship with ROE of quoted cement companies in Nigeria.

Conclusion and Recommendations

Conclusion

Changes in dividend tax rates provides a rare opportunity to test the dividend clientele hypothesis the idea that investors sort into clienteles based on dividend payouts. Some have preferences for stocks that pay dividends while others prefer stocks whose expected returns come in the form of capital gains when the tax disadvantage of dividends varies across investors This study was motivated to test the validity of the clientele effect hypothesis in Nigeria emerging financial market using cross sectional data of 21 quoted manufacturing firms from 2012 to 2021. the results of the study was validated by the Hausman test. The findings of the study proved beta coefficient greater than zero and t-statistic are less than the critical value of 0.05, the study conclude that the dividend clientele hypothesis is valid in the Nigeria emerging financial market.

Recommendations

- i. Policymakers need to build a proper appreciation of investor behavior, particularly among affluent households, into their thinking about any tax reform proposal affecting capital income.
- ii. There is need for aggressive and sustained investor education by the Capital market Authority to investors to enlighten them on the operations of the Capital Market intermediaries and the fundamental of the trading at the Nigeria Stock Exchange.
- iii. Enforce stringent rules of disclosures hence adequate and reliable information for the stakeholders making them vibrant and effective at the NSE. The research findings have shown that there is significant relationship between tax and stock prices. Makers should come up with proper capital generation policies that enhance earnings through prudent management of the firms operations.

REFERENCES

- Akani, H. W., & Lucky, A. L., (2014). Money supply and aggregate stock prices in Nigeria: An analysis of co-integration and causality test. *Research Journal's Journal of Finance*, 2 (10), 1 – 24.
- Amihud, Y., & Maurizio M., (1997). Dividends, Taxes, and Signaling: Evidence from Germany, *Journal of Finance* 5(2), 397-408.
- Bhattacharya, S., (1979). Imperfect information, dividend policy, and 'the bird in hand Fallacy. *Bell J. Economics*, 10: 259–270.
- Black & Scholes (1974) Black, Fischer e Scholes, Myron (1974). The Effects of Dividend Yield and Dividend Policy on common stock prices and returns. *Journal of Financial Economics* 2(1), 10-22
- Elton, E.J., & Gruber, M.J. (1970). Marginal stockholder tax rates and clientele effect. *Review of Economics and Statistics*, 52(1), 68-74.
- Enekwe, C. I., Nweze, A. U. & Agu, C. I. (2015). The Effect of Dividend Payout on Performance Evaluation: Evidence of Quoted Cement Companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research* 3(11), 40-59

- Fama, E. F. (1974). The empirical relationship between the dividend and investment decisions of firm. *The American Economic Review* 64:304-318.
- Farrar & Selwyn (1967) Farrar, Donald E. e Selwyn, Lee L. (1967). Taxes, corporate financial policy and return to investors. *National Tax Journal*, XX, 443 - 454.
- Gordon, M.J. (1959). Dividends, earnings and stock prices. *Review of Economics and Statistics*, 41(2), 99-105
- Ho, K. & Robinson, C. (1992). Dividend policy is relevant in perfect markets, Unpublished working paper
- Irfan, C. M. & Nishat, M. (2002). Key fundamental actors and long-run price changes in an emerging market: A case study of Karachi Stock Exchange (KSE). *The Pakistan Development Review*. 41(4), 517–533.
- John, K., & Williams, J., (1985). Dividends, dilution and taxes: A signaling equilibrium. *J. Finance.*, 40: 1053– 1070.
- Karanja J., (1987). The Dividend Practices of Publicly Quoted in Kenya, Unpublished MBA Thesis, University of Nairobi
- Litzenberger, R. H., & Ramaswamy, K. (1979). The Effects of Personal Taxes and Dividends on Capital Assets Prices: Theory and Empirical Evidence. *Journal of Financial Economics*, 7(1), 63-195.
- Lucky, A. L., & Onyinyechi, G. U. (2019). Dividend policy and value of quoted firms in Nigeria: A Test of Miller and Modigliani Irrelevant Hypothesis. *Australian Finance & Banking Review*, 3(2), 16-29.
- Lucky, A. L., Akani, H. W., & Anyamaobi, C., (2015). Prudential determinants of stock prices of commercial banks in Nigeria: An application of fundamentalists and macroeconomic view. 1980 – 2014. *IIARD International Journal of Banking and Finance Research* 1 (7), 1 – 27.
- Malhotra, N. & Tandon, K. (2013). Determinants of stock prices: Empirical evidence from NSE 100 Companies. *International Journal of Research in Management & Technology*. 3(3):89-95
- Miller, M., & Modigliani, F. (1961). Dividend policy, growth and the valuation of shares. *Journal of Business.*, 3(4), 411-433.
- Miller, M., & Rock, K., (1985). Dividend policy under asymmetric information. *J. Finance*, 1031–1051.
- Ndubuisi, K. J. & Onyema, J.I (2019). Effect of financial leverage on profit growth of quoted non-financial firms in Nigeria. *J Fin Mark*. 3(1):9-14.
- Njoroge, K.J. (2001) A Study On Dividend Polices Growth In Assets, Return On Assets And Return on Equity at the Nairobi Stock Exchange, Unpublished MBA Thesis, University of Nairobi

- Nwala, M.N., Gimba, J.T. & Oyedokun, G.E. (2020). Impact of corporate financial policies on firm value of quoted insurance firms in Nigeria. *Fountain University Osogbo Journal of Management (FUOJM)*, 5(1), 219 – 236.
- Okeke, M. (2019). Capital structure and firm value in Nigeria (evidence from selected quoted firms). *Journal on Banking Financial Services & Insurance Research*, 9, (1) 40-53.
- Onyango S., (1999) A Study to Establish Factors Management Consider Before Declaring Issue and The Benefits to Shareholders at NSE., Unpublished MBA Thesis, University of Nairobi 33
- Oyama, T. (1997). Determinants of stock prices: The case of Zimbabwe. Working paper of the International monetary fund.
- Pettit, R.R. (1977) Taxes, Transaction Costs and the Clientele Effect of Dividends. *Journal of Financial Economics*, 5(2), 419-436.
- Rajan, R. (2012) Presidential Address: The Corporation in Finance, *The Journal of Finance*. Lxvii (4), 10-20.
- Rajin, S., (2012). Impact of Financial Leverage on Shareholders returns and market Capitalization: Empirical evidence of telecommunication sector Companies India. *International Journal of Research in IT, Management and Engineering*, 2(12), 11-24.
- Shiller, R. J. (1984), Stock Prices and Social Dynamics, (Rep. No. Cowles Foundation
- Uzokwe, G. O. (2019). Debt financing and corporate finance performance: A dynamic investigation from Nigeria quoted firms. *American International Journal of Business and Management Studies*, 1(1), 78-96
- William (1955). Stock price behavior on ex-dividend dates. *The Journal of Finance*, X, (4), 425-429.