IJAAR PUBLISHING®

Open Access Journal of Business and Entrepreneurship
Vol. 1, Issue 1 (July-September, 2023) | www.ijaar.org

DOES CORPORATE GROWTH OPPORTUNITIES AFFECT THE DYNAMISM OF DIVIDEND PAYOUT POLICY OF LISTED NON-FINANCE FIRMS IN NIGERIA?

Ashara Obiageli Ebere
Department of Accounting
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus
obyashara@yahoo.com

Onuora JKJ, PhD.
Department of Accountancy
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus.
joshuaonuora@gmail.com

Ofor T.N, PhD
Department of Accountancy
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus.
Kechi4lv@yahoo.com

Abstract
We examine the dynamic response of dividend policy to the growth opportunities of listed non-financial firms in Nigeria from 2012 to 2021. Specifically, the explanatory variable of the study growth opportunities while firm size, and free cash flow. The dependent variable of dividend policy dynamics is proxied in terms of dividend per share and dividend payout. Specifically, the study conducts pre regression analysis which includes descriptive statistics and correlation matrix analysis. A critical examination of all the diagnostic tests revealed that the model failed the normality assumption of the OLS estimates. However, the study carefully interprets the p-value of the GMM step II regression estimates. Based on the findings of the study, it is concluded that an increase in the growth opportunities of listed non-finance firms in Nigeria significantly reduces dividend per share and dividend payout during the period under study. The study recommends that management of listed non-finance firms in Nigeria should be cautious when aggressively pursuing growth opportunities in the form of investment in asset as this will reduce dividend payment and discourage external fund sourcing. Specifically, the study recommends that investors seeking for dividend payment should be cautious about firms that are actively looking for investment opportunities since they tend to adopt a low dividend payout policy because the cash flows will be used up for the investment and not to pay dividend. The study recommends that investors should look out for non-finance firms with large asset base since large firms are supposedly mature with easier access to capital markets, which reduce their dependence on internal funds. Thus, it should be easier for them to pay more dividends. This shows that large firms can afford to pay higher dividends than the smaller ones and thus provides an opportunity for investors to invest their monies since dividend payout is certain.

Published *10/08/2023*
Ashara, O.E., Onuora, J.K.J & Ofor,T.N. (2023). Does Corporate Growth Opportunities Affect the Dynamism of Dividend Payout Policy of Listed Non-Finance Firms in Nigeria? *Open Access Journal of Business and Entrepreneurship*, 1(1), 15-32.

1.0 Introduction

Dividend policy dynamics is one of the important issues in advance corporate finance and as well as for Nigeria's capital market. It is the most debatable issue in advanced corporate finance and still keeps its prominent place. Much research has been conducted by well-known researchers and provided the theories and empirical evidence regarding the determinants of dividend policy. Still there has not been an acceptable explanation for the observed dividend behavior of firms. Particularly, researchers on corporate dividend policy have over the years followed two divergent paths. Some researchers have followed a behavioral approach by surveying the opinion of corporate managers in order to gain insight into the factors they consider most important in determining their firms' dividend policy. Studies in this category include the works of Baker et al. (1985), Farrelly et al. (1986), Baker and Farrelly (1988), Pruitt and Gitman (1991), Baker and Powell (1999, 2001) and Mainoma (2001). These studies found that different managers at different times attach varying importance to the factors that influence a firm's dividend decision.

However, certain factors such as the level of current and past earnings and the pattern of variability of past dividends (dynamic dividend policy) have emerged as consistently important over the years. Hence, this study defines a dividend policy dynamic as a situation where management bases its dividend payout decision on previous years' payment history. Several exogenous factors of firm characteristics and macroeconomic variables can affect previous year's dividend payment (dynamic dividend policy) and current year dividend payment, both directly and indirectly. These factors include growth opportunities and so on (Weston & Copeland, 1992; Chen & Steiner, 1999; Iturriaga & Sanz, 2001; Brigham & Houston, 2004; Al-Najjar, 2009; Al-Shubiri, 2011). Firms with slow growth and fewer investment opportunities will probably pay more dividends to prevent managers from over-investing firms' cash. However, ownership structure will dictate the monitoring policy and in turn would influence dividend policy. Large shareholders in a company have an incentive to monitor management due to the substantial amount that they invested in the company. Recent theory included to the dividend puzzle is the Life-Cycle Theory (Okun & Ohidoa, 2018), which states that the dynamic dividend policy depends upon its business life cycle phase.

Several mature firms are desire to pay higher dividend as they reap more profit with a small number of investment opportunities. Young and high growth firms target more towards growth and have greater investment opportunities but with low and hesitant profits. This study seeks to address the effect of growth opportunities on dividend payout policy in Nigeria. The study employs a dynamic panel regression technique that can capture the heterogeneity effect present in the firm, ensure that a larger firm observation of non-finance firms over 10 years is used unlike previous studies of Sakinc and Gungor, 2015; Filsaraei and Zarei, 2017; Badu, 2013; Sardar 2015; Kania and Bacon, 2005; Mohammed 2016; Mohammed 2011; Pandey and Ashvini 2016; Mahdzan and Zainudin 2016; and Christopher, (2014) that use short periods and small firm observations. Again, the study proxy dividend policy with dividend per share which have been hugely ignored in prior studies. More than this, the study to the best of our knowledge will be the first in the context of Nigeria to use most recent data to investigate the dividend policy dynamic response to growth opportunities employing listed non-finance firms in Nigeria from 2012 to 2021.

2.0 Literature Review

Dividend Policy

Ouma and Murekefu (2012) define the term dividend as payment by a company to its stockholders. Emekekwue (2018) further defines dividend as that section of a business's profit that is shared out to the investors as reward for investment. Dividend may therefore be viewed as the section of a firms' net income that the directors propose to distribute amongst investors in proportion to their shareholdings in the firm (Pandy, 2017). Fumey and Doku (2013) outline that dividend payout relates to a proportion of total profit remitted to ordinary shareholders as dividends. Dividend payout ratio is considered vital in providing insight on a company's dividend policy to its stakeholders. In this study, dividend policy will be measured in terms of dividend per share as well as dividend payout. Dividend policy has become a major decision in corporate finance in recent times. Dividend is a distribution or appropriation of profit to shareholders. The amount is decided by the board of directors and is usually paid quarterly semiyearly or yearly depending on the policy of the firm. Study on dividend policy was provoked by Miller and Modigliani's (1961) research which concluded that under perfect capital markets dividends are not relevant. However, later investigations which lighten up the assumption of perfect market and documented the presence of market imperfections, such as information asymmetry, tax consideration and agency cost discovered that dividend policy was indeed relevant to the value of a firm.

Within corporate finance, dividend policy represents one of the most intensively researched topics that academics have studied. Numerous researchers have attempted to solve the "dividend puzzle" identified in Black (1976) but these studies have not yet arrived at an A common solution. A mix of opinion therefore exists about why firms pay dividends and whether the selection of a particular dividend policy can influence the value of a firm. Generally, financial researchers are divided into three groups on the basis of their beliefs about the impact of dividend policy on firm value. The first group believes that dividends have information content: an increase in the dividend payout increases firm value (e.g. Lonie et al., 1996; McCluskey et al., 2006). The second group are of the opinion that an increase in dividend tends to reduce share price because (i) it suggests that firms have a dearth of positive NPV projects needing investment (e.g. Woolridge and Ghosh, 1985; Soter et al., 1996) or (ii) it leads to higher taxation payments when the tax on income is higher than that a capital gains (e.g. Lasfer, 1995; Bell and Jenkinson, 2002) The third group claims that dividend policy has no effect on firm value (e.g. Uddin 2003; Kaleem and Salahuddin, 2006).

Dividend Per Share (DPS)

Dividend is commonly defined as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their ownership (Sujata, 2009). Therefore, distributions made out of the company's profits/earnings and the decision to pay out dividends is based on the firm's dividend policy. A dividend per Share (DPS) is the sum of dividends declared by a company divided by the number of outstanding ordinary shares issued. According to Hashim, Shahid, Sajid and Umair (2013), there are varied reasons why companies pay dividends. It may either be a way to reduce the rise in agency cost between managers and shareholders or to reduce the uncertainty of the investors of the company. If the goal of the investor is to receive returns on a continuous basis, he will prefer to invest in firms paying dividends. Dividends are mostly paid out by companies that are in a better cash position and whose earnings can be said to best able and sound (Kania & Bacon, 2005).

According to Denis and Osobov (2008), large, mature and more profitable firms are thought to be highly probable to pay dividends as they can even source for such funds to pay out dividends from cheap external debt sources at their disposal.

Dividend Payout (DPO)

Dividend pay-outs are important to shareholders and potential investors in showing the earnings that a company is generating. Healthy dividends pay-outs thus indicate that companies are generating real earnings rather than cooking books (Barron, 2002). A study by Zhou & Ruland (2006) revealed that high dividend pay-out firms tend to experience strong future earnings but relatively low past earnings growth. The findings of another study done by Arnott & Asness (2003) also revealed that future earnings growth is associated with high rather than low dividend pay-out. They concluded that historical evidence strongly suggests that expected future earnings growth is fastest when current pay-out ratios are high and slowest when pay-out ratios are low. Their evidence contradicted the view that substantial reinvestment of retained earnings would fuel faster future earnings growth. Low dividend resulting in low growth may be as a result of suboptimal investment and less than ideal projects by managers with excess free cash flows at their disposal. This is prominent for firms with limited growth opportunities or a tendency towards over-investment. Paying substantial dividends which in turn would require managers to raise funds from issuance of shares, may subject management to more scrutiny, reduce conflicts of interest and thus curtail suboptimal investment (Arnott & Asness, 2003). This is based on the assumption that suboptimal investments lay the foundation for poor earnings growth in the future whereas discipline and a minimization of conflicts will enhance growth of future earnings through carefully chosen projects. Therefore, paying dividends to reduce the free cash flows enhances the performance of a company since managers will have less cash flows thus avoiding suboptimal investments.

Growth Opportunities

Most empirical studies measure growth opportunities using Tobin's Q. Desai and Dharmapala (2009) used Tobin's q as a proxy for value. Tobin's Q is the ratio of the market value of a firm to the replacement cost or book value of assets at yearend (Allayannis & Weston, 2001). Tobin's Q measures value by scaling the market value of a company's assets with the costs that would be incurred to replace the asset at the current marketplace (Lewellen & Badrinath, 2007). Tobin's Q is utilized as the market value of a firm in most studies (Desai & Dharmapala, 2009; Bhabra, 2007; Allayannis & Weston, 2001). The popularity of the index is based on its ability to reflect the performance of management. According to Bhagat and Black (2002), high Tobin's Q means that the managers of a firm have produced greater market value from the same asset. This is consistent with the position of Lewellen and Badrinath (2011) that, companies which exhibit Tobin's Q greater than "one" means effective use of scarce resources, while Tobin's Q less than "One," means the inefficient or poor use of scarce resources. The investment opportunities are measured through Tobin's Q which was introduced by Tobin (1969). The ratio evaluates the market value of a firm to the replacement cost of the firm's physical assets. Tobin's Q reflects expectations about future earnings and market perceptions about the value of the firm. Firm's demand of funds for supplementary investments is characterized by a high Tobin's Q as a proxy for the firm's growth opportunities and has a negative impact on dividend yield. The study employs Tobin's Q as a measurement for investment opportunities which is in line with John & Lang (1991), Yoon & Starks (1995) and Knyazeva & Knyazeva (2011).

Theoretical Review

This study is based on the dividend signaling theory is based on the asymmetric information where managers have better access, than outsiders, to inside information about the company (Bhattacharya, 1979; Miller and Rock, 1985). They may signal such information with the shareholders and potential investors through their dividend policy in order to reduce asymmetries. Managers may use changes in dividend policy to communicate information to the market about the future prospect of the firm. Constant or increase in dividends pay-out signals positive messages about the future prospects of the company. This would result in an increase in share price. Whereas not paying or decrease in dividends pay-out might be received negatively by shareholders and potential investors and this would result in a decline in share price. According to Bhattacharya (1979), variations in dividend policy communicate information about variations in future cash flows. The signaling theory majorly relies on the supposition that information asymmetry exists, meaning that the management of an organization may have more information about the financial state of an organization than external investors and therefore dividend payout may be utilized by management to deliver certain information on an organization's performance. For example, an increase in a company's dividend payout may be an indicator of positive forthcoming growth of the firm's shares, while a decline in dividend payouts indicates a negative future performance by the company. Stephen Ross (1977) outlines that in an inefficient market, management can make use of dividend policy to communicate to the market. Therefore, dividend is relevant and consequently variations in dividend payout ratio will affect the share price of a firm (Fama, Fisher, Jensen, and Roll, 1969).

Empirical Review and Hypotheses Development

According to Jensen (1986) and Lang and Litzenberger (1989), firms with high growth and future investment opportunities will need the internally generated funds to finance projects. Hence, they will choose to cut, or pay fewer dividends, to reduce their need for costly external financing. The negative relationship between growth opportunities and dividend is predicted by the liquidity hypothesis, the pecking order theory, and the life cycle theory. First, firms with slow growth and fewer investment opportunities will probably pay more dividends to prevent managers from over-investing firms' cash. This is consistent with the liquidity hypothesis, where companies with high investment opportunities are expected to have an overinvestment crisis. Thus, a dividend would play an incentive role by removing resources from the firm and decreasing the agency costs of free cash flows (Al-Malkawi, 2007). Second the negative relationship between firms' growth opportunities and dividend payouts is consistent with the pecking order theory of Kanwal and Sujata (2008) which states that a firm which prefers internal sources for financing its investments distributes fewer dividends as compared to a firm which finances the investment expenditure from external sources. They concluded that firms experiencing high growth opportunities will have low payout ratios. Third, according to the "life cycle theory", as firms become mature, their growth and investment opportunities diminish, resulting in a cut in their capital expenditures which will leave them with more free cash flows to pay as dividends. They pointed out that a raise in dividends is a sign of change for the shareholders, which will show the firm's transition from higher growth phase to a lower growth phase.

Empirically, Fama and French (2001) confirmed that investment opportunities influenced the dividend policy. They found that firms with better growth and investments opportunities have lower dividend payments. Firms that have never paid dividend are usually smaller and less

profitable than firms that pay dividend, but with more investment opportunities. The negative relationship between dividend policy and firm's investment opportunities have been documented by many researchers such as Rozeff (1982), Jensen, et al. (1992), Alli, et al. (1993), Collins et al. (1996), Mohammed, et al. (2006), Al-Malkawi (2008). However, Jose (2001) did not find a significance dependence between growth opportunities and dividends of 484 European banks belonging to 22 countries and D'Souza (1999) found this insignificant relationship for international firms in the sample. On the other hand, Myers, and Bacon (2004) argued that firms uses their excess of equity capital to fund the growth of the company and takes an additional debt to distribute the dividends in order to give a good signal to its current and future shareholders. Therefore, they concluded that opportunities of growth resulted in the payment of higher dividends to signal the company's excellent performance. According to Amidu and Abor (2006), the dividend payout policy is not totally decided after a firm's investment and financing decisions have been made; rather, the dividend decision is taken along with the investment and financing decisions.

Miller and Modigliani (1961) argued that dividend policy and investment decisions are independent of each other. However, market imperfections imply that there may be a connection between the two. Milgrom and Roberts (1992) argued that dividend payments were higher in slow growth industries. However, firms with profitable growth opportunities have limited free cash flows and pay lower dividends in order to decrease their dependence on external financing. Hence, high growth firms need funds to finance in investment opportunities, resulting in lower dividends. In contrast, firms with low investment opportunities would reasonably pay more dividends, consistent with the free cash-flow hypothesis (Gul, 1999) The residual theory suggests that dividends are paid after all investment opportunities have been financed. Hence, a negative relationship between dividends and external financing is expected (Alli, Khan, & Ramirez, 1993). Similar evidence has been found in the context of emerging markets; for example, Mitton (2004) found a significant negative relationship between the growth and dividend payouts of firms, while Brockman and Unlu (2009) observed consistent evidence of a strong negative relationship between sales growth and dividend amounts in firms across countries. Other studies have also found a significant relationship between investment opportunity and dividend policy (e.g., Barclay, Smith & Watts, 1995; Fama & French, 2002), while others have found that investment opportunity does not have any implications for the firm’s dividend policy (Abbaszadeh & Beigi, 2014; Sawicki, 2009).

3.0 Methodology

In relation with extant literature, this study outlined two approaches for carrying out studies of this nature. The study observes that there is the firm-level approach where firm attributes and macroeconomic variables are used as determinants of dividend policy and the non-firm level data approach is where countries aggregate macroeconomic variables and industry aggregate firm data is used as determinants of dividend policy. However, this study employs the firm-level approach. More than this, the study employs the firm-level approach based on an expo-facto and non-experimental research design. Ex-post facto research design will be employed as information needed for the study is derived from existing sources that cannot be manipulated by the researcher. The study is longitudinal covering a period of ten (10) years. That is, from 2012 to 2021 employing non-finance listed firms on the floor of the Nigerian Exchange Group. The population of the study consists of all the listed non-finance firms with representation from the following sectors: Agriculture, Consumer goods, industrial goods, oil and gas, healthcare, services, natural resources, technology, and conglomerate. As of

December 2021, we had 108 non-finance firms listed on the floor of the Nigerian Exchange Group (NGX). The sampling technique employed is purposive since firms will be included in the sample on certain selection criteria. These criteria were based on the firms that are listed on the Nigerian Stock Exchange market for 2012-2021; there was access to their annual financial reports within the period and they were not firms operating subsidiaries in Nigeria that are not listed in the Nigerian stock exchange. Newly listed firms and delisted firms are excluded from the study. Thus, only non-finance firms that had all relevant data due to continuous existence are included in the sample. The final sample size consists of 67 non-finance firms selected from the aforementioned sector and was arrived at based on the availability of data for ten years for all the research variables. This study adapted the model specified by Opeyemi, Olusegun, Olukayode, & Olusola (2017) which was modified for the purpose of establishing the relationship between the dependent variables and the linear combinations of several determining variables captured in the study. Hence, the econometric form of the model is expressed as:

$$DIPS_{it} = \beta_0 + \beta_1 DIPS_{it-1} + \beta_2 TOBQ_{it} + \beta_3 FSIZ_{it} + \beta_4 CFOA_{it} + \mu_{it} \ldots \text{Equation (1)}$$

$$DIVP_{it} = \beta_0 + \beta_1 DIVP_{it-1} + \beta_2 TOBQ_{it} + \beta_3 FSIZ_{it} + \beta_4 CFOA_{it} + \mu_{it} \ldots \text{Equation (2)}$$

Where:

DIPS	=	Dividend Per Share
$DIPS_{it-1}$	=	Lag of Dividend Per Share
DIVP	=	Dividend Payout
$DIVP_{it-1}$	=	Lag of Dividend Payout
TOBQ	=	Tobin Q (proxy for growth opportunities)
FSIZ	=	Firm Size
CFOA	=	Cash Flow
β_0	=	Constant
β_1- β8	=	Slope Coefficient
μ	=	Stochastic disturbance
i	=	i^{th} firm
t	=	time period

Thus, our apriori expectations are stated as; X_1-X_4><0: which means that a rise in the determinant variables of growth opportunities will lead to a rise in dividend policy of listed non-finance firms in Nigeria. The econometric techniques adopted in this study are the dynamic panel GMM regression. The rationale for its usage is based on the following justifications: the data that will be collected may have time and cross-sectional attributes as well as across the sampled firms (cross-section); panel data regression provides better results since it uses large observation and reduces the problem of degree of freedom (Muhammad, 2012); it avoids the problem of multicollinearity and help to capture the individual cross-sectional (or firm-specific) effects that the various pools may exhibit with respect to the dependent variable in the model. Hausman and Taylor (1981) also recommended panel data estimation method because it enables a cross-sectional time series analysis which usually makes provision for a broader set of data points, but also because of its ability to control heterogeneity and endogeneity issues. Hence panel data estimation allows for the control of individual-specific effects usually unobservable which may be correlated with other

explanatory variables included in the specification of the relationship between dependent and explanatory variables.

Operationalization/ Measurement of Variables and Apriori Expectation

S/N	Variables	Notation and Sources	Apriori Sign
Dependent Variable			
1	Dividend Per share	Cash dividend per share in per share basis is computed as cash dividend paid divided by outstanding shares	
2.	Dividend Payout	Cash dividend pay-out in percentage is computed as cash dividend paid divided by profit after tax	
Independent Variables			
3	Growth Opportunities	Tobin Q in numbers is computed as Market Capitalization + Total Liabilities -Cash flow divided by Total assets.	+
4	Firm Size	Log of total asset in thousands is computed as the natural logarithm of Total asset.	+
5	Cash Flow	Cash Flow from Operations to Asset in percentage is computed as Net cash flow from operations divided by Total asset.	+-

Source: ***Author's Compilation (2023)***

4.0 Results and Discussion

We investigate the dynamic response of dividend policy to the growth opportunities of listed non-financial firms in Nigeria from 2012 to 2021. The data for the study was derived from the annual report of the listed firms under study. Specifically, the explanatory variable of the study includes growth opportunities while controlling for firm size and free cash flow. The dependent variable of dividend policy dynamics is proxied in terms of dividend per share and dividend payout. In this section of the study, the pre-regression analysis which includes descriptive statistics is critically examined. Furthermore, this section of the study also shows the association or level of relationship between the variables through the spearman rank correlation analysis. The multiple panel regression estimation technique is also discussed in this section.

Descriptive Statistics

The study examines the descriptive statistics for both the explanatory and dependent variables of interest. Basically, each variable is examined in terms of the mean, standard deviation, maximum and minimum. Table 1 displays the descriptive statistics for the study.

Table 1: Descriptive Statistics

VARIABLES	MEAN	STAN. DEV.	MIN.	MAX.	NO OBS
DIPS	1.30	5.24	0	68	670
DIVP	154.24	2886.82	-1935.63	74636.63	670
TOBQ	1.37	1.34	-0.31	12.69	670
FSIZ	7.17	0.82	5.03	9.38	670
CFOA	0.08	0.15	-0.94	0.59	670

Source: Author (2023)

Table 4.1 shows the descriptive statistics of this study. The table shows that the dependent variable of dividend policy when measured in terms of dividend per share (DIPS) has a mean of 1.30 with a standard deviation of 5.24. The table also shows that the dependent variable of dividend policy when measured in terms of dividend payout (DIVP) has a mean of 154.24 with a standard deviation of 2886.82. The implication of our result with respect to the dependent variable of dividend policy is that on the average, the ratio of dividend paid to outstanding share was about 5% during the period under study. Specifically, the study opines that during the period under study the firms in our sample paid about N154 for every N1 profit made. In the case of the independent variable, the table shows that the mean of growth opportunities when measured in terms of Tobin Q (TOBQ) was 1.37 with a standard deviation of 1.34. In the case of the control variable, firm size (FSIZ) had a mean of 7.17 with a standard deviation of 0.82. For the control variable of cash flow (CFOA), the table reveal that it had a mean of 0.08 with a standard deviation of 0.15 during the period under investigation.

Correlation Analysis

In this study, the Spearman rank correlation is employed since the data employed does not come from a normal distribution. The result obtained from the Spearman correlation is presented in table 4.2.

Table 4.2: Correlation analysis

VARIABLES	DIPS	DIVP	TOBQ	FSIZ	CFOA
DIPS	1.0000				
DIVP	0.7134	1.0000			
TOBQ	0.2063	0.1371	1.0000		
FSIZ	0.5172	0.2253	0.1131	1.0000	
CFOA	0.3000	0.2559	0.1412	0.1801	1.0000

Author's computation (2023)

In the case of the correlation between the independent variables and dependent variables of the study, the above results show that there is a positive association between the independent variable of growth opportunities when measured in terms of Tobin Q (0.2063) and the dependent variable of dividend policy when measured in terms of dividend per share during the period under study. Furthermore, table 2 shows that there is also a positive association between the control variable of firm size (0.5172) and the dependent variable of dividend policy when measured in terms of dividend per share during the period under study. The variable of cash flow (0.3000) also appears to have a positive association with the dependent variable of dividend policy when measured in terms of dividend per share during the period under study. On the other hand, table 2 shows that there is also a positive association between

the independent variable of growth opportunities when measured in terms of Tobin Q (0.1371) and the dependent variable of dividend policy when measured in terms of dividend payout during the period under study. Furthermore, table 2 shows that there is also a positive association between the control variable of firm size (0.2235) and the dependent variable of dividend policy when measured in terms of dividend payout during the period under study. The variable of cash flow (0.2559) also appears to have a positive association with the dependent variable of dividend policy when measured in terms of dividend payout during the period under study.

Multivariate Regression Analyses

In this study, to examine the cause-effect relationships between the dependent variables and independent variables, the pool OLS regression is employed and then the study proceeds to validate the estimates of the OLS results. Specifically, to capture the dynamism of dividend policy, this study relied on the Arellano–Bond (Arellano and Bond 1991) dynamic panel estimator which is increasingly becoming popular. Particularly, the Arellano–Bond GMM dynamic estimators are generally designed for situations with "small T, large N" panels, meaning few time periods and many cross sections; left-hand-side variable that is dynamic, depending on its own past realizations; and independent variables that are not strictly exogenous, meaning they are correlated with past and possibly current realizations of the error. Our model satisfies all the conditions outlined by Arellano–Bond and hence, the GMM estimators are most suitable to evaluate the dynamism of dividend policy. The results obtained from the results are presented below.

Table 3: Multivariate Regression Results

	DIPS Model (Pool OLS)	DIPS Model (GMM Step I)	DIPS Model (GMM Step II)	DIVP Model (Pool OLS)	DIVP Model (GMM Step I)	DIVP Model (GMM Step II)
CONS.	-12.343 {0.000} ***	-5.795 {0.510}	-5.815 {0.000} ***	13.504 {0.822}	-3573.011 {0.667}	-2566.061 {0.000} ***
LDIPS/LDIVP	0.560 {0.000} ***	0.407 {0.000} ***	0.407 {0.000} ***	0.998 {0.000} ***	-0.082 {0.908}	-0.068 {0.000} ***
TOBQ	1.586 {0.000} ***	-0.098 {0.564}	-0.096 {0.000} ***	3.404 {0.496}	-89.406 {0.611}	-69.146 {0.000} ***
FSIZ	1.493 {0.000} ***	0.975 {0.428}	0.971 {0.000} ***	6.160 {0.460}	473.73 {0.682}	347.768 {0.000} ***
CFOA	0.731 {0.572}	-0.225 {0.812}	-0.251 {0.000} ***	81.510 {0.068}	-55.867 {0.952}	-61.105 {0.000} ***
F-Stat/W-Stat	38.76 {0.0000}	122.69 (0.0000)	147.00 (0.0000)	29239.94 (0.0000)	3.34 (0.9111)	603.73 (0.0000)
R- Squared	0.3430			0.9975		
VIF Test	1.12			1.12		
Hettero. Test	1528.87 {0.0000}			120.72 {0.0000}		

Note: (1) bracket {} are p-values; (2) **, ***, implies statistical significance at 5% and 1% levels respectively

The table above represents the results obtained from the multivariate regression for this study. The result indicates that the pool OLS regression had an R-squared value of 0.3430 when the

independent variable of dividend policy is proxied in terms of dividend per share and 0.9975 when the dependent variable of dividend policy is proxied in terms of dividend payout. The result implies that the independent variables of the study could explain 34% and 99% of the systematic changes in the dependent variable of dividend policy when measured in terms of dividend per share and dividend payout respectively. However, the unexplained part of dividend policy has been captured in the error term. The result of the F-statistics {(38.75 in terms of dividend per share and 29239.94 in terms of dividend payout)} of the pool OLS regression model for the sample non-financial firms in Nigeria with their associated p-value of 0.0000 indicates that the pool OLS regression models on the overall are statistically fit at 1% level of significance and can be employed for statistical inferences. However, to further validate the estimates of the pool OLS results for both models of dividend per share and dividend payout measures of dividend policy, this study also tests for the presence of multicollinearity and heteroscedasticity which could possibly cause spurious results. The results from the VIF test show a mean value of 1.12 when the dependent variable of dividend policy is measured in terms of dividend per share and dividend payout. Specifically, the result shows that the mean VIF is within the benchmark of 10 in line with the position of (Gujurati, 2004) indicating the absence of multicollinearity and further show that none of the independent variables should be dropped from the models respectively. The assumption of homoscedasticity states that if the errors are heteroscedastic then it will be difficult to trust the standard errors of the least square estimates. Hence, the confidence intervals will be either too narrow or too wide. We conduct this test by employing the Breusch Pagan module in Stata 14. The result shows a chi2 value of 1528.87 with a p-value of 0.0000 for the dividend per share model and a chi2 value of 120.72 with a p-value of 0.0000 for the dividend payout model. The result shows a significant p-values across both models indicating that the assumption of homoscedasticity of the pool OLS regression results have been violated. Hence, the study re- specifies the model to control for this violation by employing the panel regression as recommended by (Greene, 2003).

In the case of GMM step one, the result as presented in table 4 shows an F-statistics value of 122.69 when the dependent variable of dividend policy is measured in terms of dividend per share and 3.34 when the dependent variable of dividend policy is measured in terms of dividend payout. The probability value of 0.0000 for the dividend per share model indicates that on the overall, the GMM step one results for the model of dividend per share is fit for statistical inference, but the study fails to come to the same conclusion with the GMM step one of the dividend payout models. Furthermore, in the case of GMM step two, the result as presented in table 4 shows an F-statistics value of 147.00 when the dependent variable of dividend policy is measured in terms of dividend per share and 603.73 when the dependent variable of dividend policy is measured in terms of dividend payout. The probability value of 0.0000 for the dividend per share and dividend payout models indicates that overall, the GMM step Two results for the model of dividend per share and dividend payout are fit for statistical inference. However, this study employs fixed-smoothing asymptotic to compare the one-step and two-step procedures. For the one-step procedure, the long run variance (LRV) estimator is used in computing the standard errors, leading to the popular heteroskedasticity and autocorrelation robust (HAR) standard errors (Newey & West (1987) and Andrews, 1991). On the other hand, for the two-step procedure, the LRV estimator not only appears in the standard error estimation but also plays the role of the optimal weighting matrix in the second step GMM criterion function. Under the fixed-smoothing asymptotic, the weighting matrix converges to a random matrix. As a result, the second step GMM estimator is not asymptotically normal but rather asymptotically mixed normal. The asymptotic mixed normality reflects the estimation uncertainty of the GMM weighting matrix and is expected to

be closer to the finite sample distribution of the second step GMM estimator. Based on the foregoing, the power benefit of the two step GMM is justified and thus relied upon for hypotheses testing in this study.

The results obtained from the two step GMM regression model revealed that growth opportunity as measured in terms of Tobin Q [coef. = -0.096 (0.000)] has a significant negative effect on dividend policy at 1% significant level when proxied in terms of dividend per share of listed non-finance firms in Nigeria during the period under study. Furthermore, the study documents that growth opportunity [coef. = -69.146 (0.000)] also has a significant negative effect on dividend policy at 1% significant level when proxied in terms of dividend payout of listed non-finance firms in Nigeria during the period under study. Hence, the null hypothesis that growth opportunity is not a significant determinant of dividend policy of listed non-finance firms in Nigeria is rejected. The result implies that dividend policy dynamically responds to the growth opportunity of the listed non-finance firms under study in Nigeria as evident in the lag of dividend policy by dividend per share {0.407 (0.000)} and dividend payout {-0.068 (0.000)}. Particularly, the study shows that an increase in the growth opportunities of listed non-finance firms in Nigeria significantly reduces dividend per share and dividend payout during the period under study. The findings is in line with Jensen (1986) and Lang and Litzenberger (1989) who noted that firms with high growth and future investment opportunities will need the internally generated funds to finance projects. Hence, the present study opines that they will choose to cut, or pay fewer dividends, to reduce their need for costly external financing as revealed by the study's findings. Furthermore, this study notes that the negative relationship between growth opportunities and dividend is predicted by the liquidity hypothesis, the pecking order theory, and the life cycle theory. The study opines that firms with slow growth and fewer investment opportunities will probably pay more dividends to prevent managers from over-investing firms' cash. This is consistent with the liquidity hypothesis, where companies with high investment opportunities are expected to have an overinvestment crisis. Thus, a dividend would play an incentive role by removing resources from the firm and decreasing the agency costs of free cash flows (Al-Malkawi, 2007). Also, the negative relationship between firms' growth opportunities and dividend payouts is consistent with the pecking order theory of Kanwal and Sujata (2008) which states that a firm which prefers internal sources for financing its investments distributes fewer dividends as compared to a firm which finances the investment expenditure from external sources. Finally, according to the "life cycle theory", as firms become mature, their growth and investment opportunities diminish, resulting in a cut in their capital expenditures which will leave them with more free cash flows to pay as dividends.

5.0 Conclusion and Recommendation

We examine the dynamic response of dividend policy to the growth opportunities of listed non-financial firms in Nigeria from 2012 to 2021. Specifically, the explanatory variable of the study growth opportunities while firm size, and free cash flow. The dependent variable of dividend policy dynamics is proxied in terms of dividend per share and dividend payout. Specifically, the study conducts pre regression analysis which includes descriptive statistics and correlation matrix analysis. Basically, the panel Ordinary Least Square Regression analysis was first conduct and diagnostic tests were carried out to check if it violates the basic Gauss Markov Theorem and assumptions. These post regression test includes test for multicollinearity, test for homoscedasticity as well as test for fixed and random effect. A critical examination of all the diagnostic tests revealed that the model failed the normality assumption of the OLS estimates. However, the study carefully interprets the p-value of the

GMM step II regression estimates. Based on the findings of the study, it is concluded that an increase in the growth opportunities of listed non-finance firms in Nigeria significantly reduces dividend per share and dividend payout during the period under study. The study recommends that management of listed non-finance firms in Nigeria should be cautious when aggressively pursuing growth opportunities in the form of investment in asset as this will reduce dividend payment and discourage external fund sourcing. Specifically, the study recommends that investors seeking for dividend payment should be cautious about firms that are actively looking for investment opportunities since they tend to adopt a low dividend payout policy because the cash flows will be used up for the investment and not to pay dividend. The study recommends that investors should look out for non-finance firms with large asset base since large firms are supposedly mature with easier access to capital markets, which reduce their dependence on internal funds. Thus, it should be easier for them to pay more dividends. This shows that large firms can afford to pay higher dividends than the smaller ones and thus provides an opportunity for investors to invest their monies since dividend payout is certain.

REFERENCES

Al-Malkawi, H. A. N. (2008). Factors Influencing Corporate Dividend Decision: Evidence from Jordanian Panel Data. *International journal of business*, *13*(2).

Al-Malkawi, H. A. N., Rafferty, M., & Pillai, R. (2010). Dividend policy: A review of theories and empirical evidence. *International Bulletin of Business Administration*, *9*(1), 171-200.

Al-Najjar, B. (2009). Dividend behaviour and smoothing new evidence from Jordanian panel data. *Studies in Economics and Finance*.

Al-Shubiri, F. N. (2011). Determinants of changes dividend behavior policy: Evidence from the Amman stock exchange. *Far East Journal of Psychology and Business*, *4*(1), 1-15.

Amidu, M. (2007). How does dividend policy affect performance of the firm on Ghana stock Exchange? *Investment management and financial innovations*, *4*(2), 103-112.

Ang, A., & Bekaert, G. (2007). Stock return predictability: Is it there? *The Review of Financial Studies*, *20*(3), 651-707.

Bettis, R. A. (1983). Modern financial theory, corporate strategy and public policy: Three conundrums. *Academy of Management Review*, *8*(3), 406-415.

Bhabra, G. S. (2007). Insider ownership and firm value in New Zealand. *Journal of Multinational Financial Management*, *17*(2), 142-154.

Bhabra, G. S. (2007). Insider ownership and firm value in New Zealand. *Journal of Multinational Financial Management*, *17*(2), 142-154.

Bhattacharya, S. (1979). Imperfect information, dividend policy, and “the bird in the hand” fallacy. The Bell Journal of Economics, 10(1), 259-270.

Bhattacharya, S. (1979). Imperfect information, dividend policy, and" the bird in the hand" fallacy. *The Bell Journal of Economics*, 259-270.

Black, F. (1976), “The dividend puzzle”, Journal of Portfolio Management, 2 (2), 5-8.

Black, F. (1976). The dividend puzzle. *The Journal of Portfolio Management*, 23(5), 8-12.

Black, F. (1976). The pricing of commodity contracts. *Journal of financial economics*, *3*(1-2), 167-179.

Black, F., & Scholes, M. (2019). The pricing of options and corporate liabilities. In *World Scientific Reference on Contingent Claims Analysis in Corporate Finance: Volume 1: Foundations of CCA and Equity Valuation* (pp. 3-21).

Blume, M. E. (1980). Stock returns and dividend yields: Some more evidence. *The Review of Economics and Statistics*, 567-577.

Christopher M., (2014). Determinants of the dividend policy: an empirical study on the Lebanese listed banks. *International Journal of Economics and Finance*, *6*(4), 240-256.

Cohen, L., Monion, L., & Morris, K. (2000). Research methods in education 5th ed. London UK and New York.

Deeptee, P. R., & Roshan, B. (2009). Signalling power of dividend on firms' future profits a literature review. *International Interdisciplinary Journal*, *1*(1), 1-9.

Denis, D. J., & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial economics*, *89*(1), 62-82.

Epaphra, M., & Nyantori, S. (2018). Analysis of the determinants of dividend policy: Evidence from manufacturing companies in Tanzania. *Corporate Governance and Organizational Behavior Review*, *2*(1), 18-30.

Fama, E. and French, K. (2001), "Disappearing dividends: changing firm characteristics or lower propensity to pay?", *Journal of Financial Economics*, 60, (1) 3-43

Fama, E. F., & French, K. R. (1988). Permanent and temporary components of stock prices. *Journal of political Economy*, *96*(2), 246-273.

Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The adjustment of stock prices to new information. *International economic review*, *10*(1), 1-21.

Farsio, F., Geary, A., & Moser, J. (2004). The relationship between dividends and earnings. *Journal for economic educators*, *4*(4), 1-5.

Filsaraei, M., & Zarei, A. (2017). The relationship between ownership and dividend policy: evidence from Tehran Stock Exchange. *International Journal of Economics and Financial Issues*, *7*(2), 664.

Fowler, C. W. (1987). A review of density dependence in populations of large mammals. *Current mammalogy*, 401-441.

Getachew, S. (2017). *Determinants of Dividend Policy: Evidence* (Master's project, Addis Ababa University Addis Ababa, Ethiopia).

Glen, J., Karmokolias, Y., Miller, R. and Shah, S. (1995) "Dividend Policy and Behavior in Emerging Markets" IFC Discussion Paper No. 26, www.ifc.org

Griffin, J. M., & Lemmon, M. L. (2002). Book-to-market equity, distress risk, and stock returns. *The Journal of Finance*, *57*(5), 2317-2336.

Gul, S., Sajid, M., Razzaq, N., Iqbal, M. F., & Khan, M. B. (2012). The relationship between dividend policy and shareholder's wealth. *Economics and Finance Review*, *2*(2), 55-59.

Hafeez, M. M., Shahbaz, S., Iftikhar, I., & Butt, H. A. (2018). Impact of Dividend Policy on Firm Performance. *International Journal of Advanced Study and Research Work*, *1*(4), 1-5.

Harada, K., & Nguyen, P. (2005). Dividend change context and signaling efficiency in Japan. *Pacific-Basin Finance Journal*, *13*(5), 504-522.

Howatt, B., Zuber, R. A., Gandar, J. M., & Lamb, R. P. (2009). Dividends, earnings volatility and information. *Applied Financial Economics*, *19*(7), 551-562.

Ilaboya, O.J., Aggreh, M. (2013), Dividend policy and share price volatility. *Journal Asian Development Study*, 2(2), 109-122.

Iturriaga, F. J., & Sanz, J. A. (2001). Ownership structure, corporate value and firm investment: A simultaneous equations analysis of Spanish companies. *Journal of Management and Governance*, *5*, 179-204.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, *76*(2), 323-329.

Jensen, M., & Meckling, W. (1976). The theory of firm: managerial behaviour, agency problems and dividend policy around the world. *Journal of Finance*, 55(1), 1-33.

Kamran, A., Sehrish, S., & Saleem, F. Y. M. & Shehzad, F.(2012). Impact of concentrated Ownership on firm performance: Evidence from Karachi Stock Exchange. *Interdisciplinary Journal of Contemporary Research in Business*, *4*(5), 54-56.

Kania, S. L., & Bacon, F. W. (2005). What factors motivate the corporate dividend policy? *American Economic Journal: Economic Policy*, *6*(2), 54-93.

Kannadhasan, M., Aramvalarthan, S., Balasubramanian, P., & Gopika, A. (2017). Determinants of dividend policy of Indian manufacturing companies: Panel autoregressive distributed lag analysis. *Academy of Accounting and Financial Studies Journal*, 21(2), 1-12.

Keown, A., Martin, J., Petty, W. & Scott, D. (2006). Foundations of Finance. *Pearson Prentice Hall*. Upper Saddle River, NJ

Kothari, C., & Garg, G. (2014). Research Methodology: Methods and Strategy. *New age international*. 6(2), 2-9

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, *30*(3), 607-610.

Kumar, D. (2020). An empirical analysis of factors affecting the dividend payouts of the pharmaceutical industry: Evidence from the NSE, India. *International Journal of Management*, *11*(6).

Lee, S. H., & Makhija, M. (2009). Flexibility in internationalization: is it valuable during an economic crisis?. *Strategic Management Journal*, *30*(5), 537-555.

Lintner, J. (1956), Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), 97-113.

Lintner, J. (1956). Distribution of income of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), 97-113.

Lotto, J. (2020). On an ongoing corporate dividend dialogue: Do eternal influences also matter in dividend decision? *Cogent Business & Management*. 7:1, 1787734, DOI: 10.1080/23311975.2020.1787734

Mahdzan, N., Zainudin, R., (2016). Interindustry dividend policy determinants in the context of an emerging market. *Economic research-Ekonomska istraživanja*, *29*(1), 250-262.

McCluskey, T., Burton, B., & Power, D. (2007). Evidence on Irish financial directors' views about dividends. *Qualitative Research in Accounting & Management*, *4*(2), 115-132.

Miller, M. H. & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of Finance*, 40(4), 1031-1051.

Mohammed, H. K. (2016). The impact of total risk management on company's performance. *Procedia-Social and Behavioral Sciences*, *220*, 271-277.

Naeem, M., Kamran, H. W., Masood, M. S., & Nazir, N. (2016). Determinants of dividend policy and its role: Empirical evidence in textile sector of Pakistan. *Developing Country Studies*, *6*(7), 27-32.

Naranjo, A., Nimalendran, M., & Ryngaert, M. (1998). Stock returns, dividend yields, and taxes. *The Journal of Finance*, *53*(6), 2029-2057.

Omran, M., & Pointon, J. (2004). Dividend policy, trading characteristics and share prices: empirical evidence from Egyptian firms. *International Journal of Theoretical and Applied Finance*, *7*(02), 121-133.

Opeyemi M. F, Olusegun D. J, Olukayode, A. E., &Olusola, S. O. (2018). Determinants of dividend policy of listed deposit money banks in Nigeria. *World Journal of Finance and Investment Research (International Institute of Academic Research and Development)*, *3*(1), 25-40.

Ozuomba, C. N., Okaro, S. C., & Okoye, P. V. C. (2013). Shareholder's value and firm's dividend policy: Evidence from public companies in Nigeria. *Research Journal of Management Sciences*, *2*(12), 26-28.

Profilet, K.A., Bacon, F.W. (2013), Policy and stock price volatility in the U.S. equity capital market. *Journal of Business and Behavioral Sciences*, 25(2), 63-72.

Silalahi A.S., Fachrudin, K.A., Sianipar, A.S. & Effendi, K.A. (2021). Analysis of bank specific factors, macroeconomic and oil price on dividend policy. *International Journal of Energy Economic and Policy*. ISSN 2146-4553.

Stacescu, B. (2006). Dividend policy in Switzerland. *Financial Markets and Portfolio Management*, *20*(2), 153-183.

Torous, W., Valkanov, R., & Yan, S. (2004). On predicting stock returns with nearly integrated explanatory variables. *The Journal of Business*, *77*(4), 937-966.

Trang, N. T. X. (2012). Determinants of dividend policy: The case of Vietnam. *International Journal of Business, Economics and Law*, *1*(1), 1-18.

Tse, C. B. (2005). Use dividends to signal or not: an examination of the UK dividend pay out patterns. *Managerial Finance*, *31*(4), 12-33.

Udobi P.I., & Iyiegbuniwe W.I. (2018). A test of Miller and Modigliani dividend policy irrelevancy theory in Nigerian stock market. *American Finance and Banking Review*, 2(2), 1234-2576.

Uwuigbe, U., Jafaru, J., & Ajayi, A. (2012). Dividend policy and firm performance: A study of listed firms in Nigeria. *Accounting and management information systems*, *11*(3), 442-454.

Warren, M. Q. (1971). Classification of offenders as an aid to efficient management and effective treatment. *J. Crim. L. Criminology & Police Sci.*, *62*, 239.

Weston, J.F. & Copeland, T.E. (1992). Managerial finance, (9th ed). The Dryden Press.

Yakubu, I. N. (2019). Revisiting the factors influencing corporate dividend policy decisions: Evidence from listed banks in Ghana. *Management & Accounting Review (MAR)*, *18*(3), 31-50.

Zhou, P., & Ruland, W. (2006). Dividend pay-out and future earnings growth. *Financial AnalystsJournal*, *62*(3), 58-69.