

OWNERSHIP STRUCTURE AND DIVIDEND POLICY IN NIGERIAN QUOTED COMPANIES

Dr Afensimi Elijah

Accounting Department, Ambrose Alli University, Ekpoma, Edo State, Nigeria

Professor Prince Izedomni Famous

Accounting Department, University of Benin, Edo State, Nigeria.

ABSTRACT: *The objective of the study was to examine the relationship between ownership structure and dividend policy in Nigeria. The ownership structure variables covered included; Managerial Ownership, Institutional Ownership and Foreign Ownership. The longitudinal research design was employed in the study as dividend policy was examined across time and cross section. The study employed the simple random sampling technique in selecting a sample size consisting of 70 companies. The secondary data used for the study were retrieved from the audited financial statements of the various quoted companies from 2009 to 2016. The findings of the study revealed that Managerial Ownership (MOWN), Institutional Ownership (IOWN) Foreign Ownership (FOWN) have significant effects on dividend policy. Results from the dividend adjustment models reveal that the effect of ownership structure variables on dividend payout is strongly moderated by earnings changes especially in the full adjustment model. The study recommends that companies adopt a diverse ownership structure with elements of managerial, foreign and institutional presence as this can ensure that the dividend policy decision is one that is balanced and prevents expropriation, address agency issues and put the company in a sustainable path in the long run.*

KEYWORDS: *Dividend policy, Managerial Ownership, Institutional Ownership Foreign and Ownership*

INTRODUCTION

Dividends are the part of corporate earnings distributed to shareholders for their participation in the capital of a corporation. And dividend policy is the process of deciding between retaining profits and disbursing profits to shareholders. Dividend policy has been largely debated in the financial literature over the years. Dividend policy is vital for investors whether internal or external to the firm, because they consider dividends not only as a source of income but also a way to assess the firms in terms of investment. It is also the way of assessing the ability of a company to generate positive cash flow. The central debate is on the different elements that could influence a company's dividend policy choice. Different theories have been developed that help explain a company's behaviour towards a dividend policy: the theory of non-pertinence (Miller & Modigliani, 1961), the bird in the hand theory (Lintner, 1962, Gordon, 1963), and the fiscal advantage theory (Litzenberger, & Ramaswamy, 1979). Jensen (1986) and Shleifer and Vishny (1986) also explain dividend policy in the context of agency theory

based on various conflicts within the organization. In a typical publicly quoted company, the shareholders are quite varied and each shareholder could have different interests concerning their participation in the corporation's capital. Investigating the relationship between ownership structure and dividend policy in Nigeria has been a debated issue (Mukhtar. 2015, Ben-david, 2010, Adelegan, 2001, Dandago, Farouk & Muhibudeen 2015) and the findings have been quite as diverse as the attention given to the issue. However, our study tow a different line from prior studies (cited above) on ownership structure and dividend policy by addressing the issue within the context of a more robust theoretic and behavioural framework using the Full Adjustment Model (FAM) and the Partial Adjustment Model (PAM), The Full Adjustment Model (FAM) relates the change in dividend policy to the change in earnings, assuming that firms change their dividend payout ratio only if it believes that the change in its earnings is relatively permanent and can be sustained over time (Kumar 2004, Al- Gharaibeh, Zurigat & Al-Harabsheh 2013). Incorporating ownership structure into this framework implies that its effect on dividend policy will be moderated by the level of earnings change. The Partial Adjustment Model (PAM) sees dividends as the results of a partial adjustment towards a targeted ratio. The changes in dividends are influenced by the difference between the previous year's dividend and the current year's target payout level which is assumed to be a fixed proportion of the earnings. In any given year, firms adjust partially to meet the expected dividend level. Again, incorporating ownership structure variables into this framework implies that its effect on dividend policy will be moderated mainly by level of convergence to target ratio and the level of earnings change. The broad objective of the study is to examine the relationship between ownership structure and dividend policy in Nigeria. In this respect, the paper has been structured as follows; the introduction is presented in section 1, section 2 examines literature review and hypotheses development. In section 3, the theoretical framework is discussed, section 4 is the presentation and discussion of results and section 5 is the conclusion and recommendations.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Managerial Ownership and Dividend Policy

A significant group of works exists on how ownership structure impacts dividend policies. In particular, the connection between managerial ownership and dividend policy has been well acknowledged (Wilberg, 2008). Most of these studies argued that dividend payout was for most part seen as a control tool which lessened managerial preference, and thus, an aspect of the firm's optimal checking or monitoring. Short, Zang and Keasey (2002) in their study on the potential relationship between ownership structures and dividend policy, made use of well-established dividend payout models. They adapted the full adjustment, the partial adjustment (Lintner, 1956), the Waud (Waud, 1966) and the earnings Trend Models with a sample size of 211 companies quoted on the London Stock Exchange for the period 1988 to 1992. Their findings constantly produced a strong backing for the hypothesis that a negative relationship existed between dividend payout policy and managerial ownership. Harjito (2009) results revealed a significant negative effect of managerial ownership on dividend policy. Hence, we specify the following hypothesis;

H₀₁: Managerial ownership has no significant impact on dividend policy on quoted firms in Nigeria.

Institutional Ownership and Dividend Policy

Hashim (2008) also defined institutional ownership as the proportion of shares owned by the largest corporate investors to the total number of shares issued. Manos (2002) studied the dividend policy of India which is an emerging economy. The results revealed a positive relationship between institutional ownership and the payout ratio of the firms. Cook and Jeon (2006) observed that institutional investors did not play a significant role in a firm's dividend policy. Obema, El-Masry and Elsegini (2008) conducted a similar study using a sample of top Egyptian listed companies. Findings indicated that only the institutional ownership was significantly related with dividend policy while others were statistically insignificant with dividend policy. Kouki and Guizani (2009) also analysed the effect of shareholder ownership distinctiveness on dividend policy. Findings showed that there was a significantly negative association between institutional ownership and the level of dividend distributed to shareholders. Miko and Kamardin (2015) investigated the impact of ownership structure on the corporate dividend policy based on the agency conflict. A sample of eight aggregate companies consisting of 80 firms was utilised for the study covering the period 2001 – 2010. The results indicated a positive relationship between dividend pay-out, institutional ownership and blockholders ownership but a negative relationship with managerial ownership. Hence, we specify the following hypothesis;

H₀₂: Institutional ownership has no significant impact on dividend policy on quoted firms in Nigeria.

Foreign Ownership and Dividend Policy

According to the studies of Baba (2009) in Japan, Chai (2010) in Korea, Ullah and Shafiullah (2012) in Pakistan and Dandago, Farouk and Muhibudeen (2015) in Nigeria, the relationship between foreign ownership and dividend was statistical significant and positive. In other words, foreign growth ownership in a company increased dividend payout ratios. According to the result of the studies of Lamet, Sami and Zhou (2012) in China, there was a statistically significant and negative relationship between foreign ownership and dividend. In other words, the increase in foreign ownership reduced the dividend payout ratios. According to the studies of Kumar (2004) in India; Bogonko (2013) in Kenya and Vinh (2014) in Vietnam, there was not a statistically significant relationship between foreign ownership and dividend. Cook and Jeon (2006) made a study on the effects of foreign and domestic ownership and a firm's payout policy. The results which supported the agency model found an association between high foreign ownership and greater dividend payout. Hence, we specify the hypothesis below;

H₀₃: Foreign ownership has no significant impact on dividend policy on quoted firms in Nigeria.

Theoretical Framework

Agency Theory

The principles of agency theory were introduced by Jensen and Meckling (1976). In general, the theory identified manager (agent) and owner's (client) conflict of interest. They stressed current contrast of interest between managers and stockholders as one of the main postulations

of agency theory. Jensen and Meckling (1976) contended that information asymmetry between management and stakeholders could lead to agency costs. As a result of the agency theory, dividend distribution policy was ascertained by the agency costs arising from the separation of ownership and control. Husam, Nizar, and Rekhap (2012) employed the agency theory in addressing the linkage between dividend policy and corporate governance. They explained that the dividend payment was deemed to be a viable corporate governance mechanism that served to align the interest of managers and shareholders thereby minimized agency problems between managers and shareholders by expanding potential default risk of firms, thereby reducing the available funds to managers. Short, Zhang and Keasey (2002), in utilizing the agency theory, argued that dividend policy performed a crucial role in reducing agency costs between shareholders and management. This study adopted the agency theory as the theoretical underpinning.

METHODOLOGY

This study utilized a longitudinal research design. The study population consisted of all non-financial quoted companies in the Nigerian Stock Exchange (NSE). The justification for focusing on the non-financial quoted firms in the Nigerian Stock Exchange is based on the fact that a good number of studies (Junaidu & Ahmed, 2014; Ogbojafor, 2010; Awotundun, Kehinde & Somoye, 2011; Sajid, 2012; Adegbelemi, Donald & Ismail, 2012; Ebenezer, 2013 and Hashim, Shaheed & Sajid, 2013) have been conducted which focus on financial firms, and as such not much consideration have been given to non-financial firms especially in the light of this dynamic dividend model. Again, governance environment appears to be significantly different for financial and non-financial firms. While it appears that financial firms are intensively regulated given the several regulation bodies overseeing the financial industry, same cannot be said for the non-financial firms.

A sample of seventy (70) companies was used for the study. These companies had available and accessible annual reports that covered the study time frame. The necessary data was extracted from the annual reports of corporate organizations for the period 2009-2016 financial years. This period was selected because of the key macro-economic challenges and corporate governance reforms that occurred within the period. Such as worsening exchange rate against the naira, high interest rate and lack of infrastructure which translated to higher prices of goods and services leading to inflation, fall in companies' share prices, inability of pension fund to meet their obligations as they became due, loss of confidence in the stock market and its regulators, increase in banks' non-performing assets (toxic assets) and decline in foreign direct investments.

The effect of ownership structure on dividend payouts was analysed using panel regression. The pooled OLS, random effects (RE) and fixed effects (FE) were estimated. For robustness the dynamic panel Generalized Methods of Moments (GMM) was employed especially to address potential endogeneity concerns.

Model Specification

For testing the hypothesized link between ownership structure and dividend policy, we used the following models: the Full Adjustment Model (FAM) and the Partial Adjustment Model (PAM). We further modified the models to account for the potential association between the ownership structure variables and dividend policy. The justification for these models is based on their dynamic specification unlike the baseline models which are static in nature. The partial adjustment and full adjustment model reflect dynamic consideration in dividend payment decision model.

Baseline Model

$$\text{Div}_{it} = \beta_0 + \beta_1 \text{MOWN} + \beta_2 \text{FOWN} + \beta_3 \text{IOWN} + \mu_{it} \text{-----} (1)$$

Introducing the control variables, the model becomes;

$$\text{Div}_{it} = \beta_0 + \beta_1 \text{MOWN} + \beta_2 \text{FOWN} + \beta_3 \text{IOWN} + \theta_1 \text{FSIZE}_{it} + \theta_2 \text{FP}_{it} + \mu_{it} \text{-----} (2)$$

Full Adjustment Model (FAM)

The theoretical framework links the change in dividend policy to the change in earnings, assuming that firms change their dividend payout ratios only if it is convinced that the change in its earnings is relatively permanent and can be sustained over time. The relationship between change in earnings (earn) and change in dividends (div), for firm i at time t, is given by:

$$\text{Div}_{it} - \text{Div}_{i(t-1)} = \beta_0 + \beta_1 (\text{earn}_{it} - \text{earn}_{i(t-1)}) + \mu_{it} \text{-----} (3)$$

After including the set of ownership structure variables, equation for a firm i at time t, is given by:

$$\text{Div}_{it} - \text{Div}_{i(t-1)} = \beta_0 + \beta_1 (\text{earn}_{it} - \text{earn}_{i(t-1)}) + \beta_S (\text{earn}_{it} - \text{earn}_{i(t-1)}) * \text{MOWN} + \beta_{IN} (\text{earn}_{it} - \text{earn}_{i(t-1)}) * \text{FOWN} + \beta_D (\text{earn}_{it} - \text{earn}_{i(t-1)}) * \text{IOWN} + \theta_2 \text{CFO}_{it} + \theta_3 \text{FP}_{it} + \mu_{it} \text{-----} (4)$$

The Partial Adjustment Model (PAM)

In line with this model, dividends are the outcomes of a partial adjustment towards achieving a targeted ratio. The changes in dividends are determined by the difference between the previous year's dividend and current year's target payout level which is assumed to be a fixed proportion of the earnings. In any given year, firms adjust partially to the target dividend level. Thus the model becomes:

$$\text{Div}_{it} - \text{Div}_{i(t-1)} = \alpha_0 + c_1 (\text{earn}_{it} - \text{earn}_{i(t-1)}) \text{-----} (6)$$

Here, c is the rate of adjustment to target payout ratio. Thus, after including the set of board variables, equation for a firm i at time t, is given by:

$$\text{Div}_{it} - \text{Div}_{i(t-1)} = \beta_0 + c\beta_1 (\text{earn}_{it} - \text{earn}_{i(t-1)}) + c\beta_S (\text{earn}_{it} - \text{earn}_{i(t-1)}) * \text{MOWN} + c\beta_{IN} (\text{earn}_{it} - \text{earn}_{i(t-1)}) * \text{FOWN} + c\beta_D (\text{earn}_{it} - \text{earn}_{i(t-1)}) * \text{IOWN} - c\text{Div}_{i(t-1)} + \theta_2 \text{CFO}_{it} + \theta_3 \text{FP}_{it} + \mu_{it} \text{-----} (8)$$

Where: Div= current dividend, Div_(t-1) = previous period dividend, Div_(t-2) = two period lag dividend, earn = current earnings; earn_(t-1) = previous period earnings, MOWN= Managerial Ownership, FOWN= Foreign ownership, IOWN= Institutional Ownership, FSIZE= Firm size FP= financial performance, i = ith firm, t = time period, μ_{it} = Model disturbance term $\beta_1, \beta_2, \beta_S, \beta_{IN}, \beta_D, \theta_1, \theta_2, \theta_3$ = slope coefficient

ANALYSIS OF RESULTS**Table 4.1: Descriptive statistics**

	Mean	Median	Max	Min	Std. Dev.	J.B	Prob
DVPAY	40.08234	28.67	1566.6	-157.99	88.76594	769010.1	0.00
IOWC	44.92665	51	91	0	26.57681	30.27321	0.00
MOWN	11.89229	1.63	120.02	0	18.60055	990.6882	0.00
FOWN	29.29376	16	87.95	0	29.90071	49.66514	0.00
CFO	68227.04	292832	84460688	-3.35E+08	21692816	356164.1	0.00
PAT	2063901	260702	43080349	-1.79E+08	11166227	494072.3	0.00

Source: Researcher's compilation (2018)

The descriptive statistics of the data is presented in table 4.1 above. As observed, DIVPAY has a mean of 40.082k with maximum and minimum values of 1566.6 and minimum of -157.99 respectively. The average institutional holding is about 44.92% with maximum and minimum values of 91% and 0% respectively with a standard deviation of 26.576. The average managerial holding is about 11.89% with maximum and minimum values of 120.02% and 0% respectively with a standard deviation of 18.600. The average foreign holding is about 29.29% with maximum and minimum values of 87% and 0% respectively with a standard deviation of 29.9007. The average CFO is 68227 with maximum and minimum values of 84460688 and -3.35e+09 respectively. The mean value for PAT stood at 2063901 with maximum and minimum values of 43080349 and -1.79e+08 respectively. The Jacque-bera statistics for all the variables reveals that the series are normally distributed given that the probability values of the J.B values are all less than 0.05. This implies the absence of significant outliers in the data.

Table 4.2: Multicollinearity Test

Variable	VIF
C	NA
IOWC	2.070027
DHOLD	1.199036
FOWC	1.949846
CFO	2.897651
PAT	2.65974

Source: Researcher's compilation (2017)

The variance inflation factor (VIF) explains how much of the variance of a coefficient estimate of a regressor has been inflated, as a result of collinearity with the other regressors. Essentially, VIFs above 10 are seen as a cause of concern. As observed in the result, none of the variables have VIF's values more than 10 and hence none gave serious indication of multicollinearity.

Regression Analysis

Table 4.3: Baseline Regression Result

	<i>POLS</i>	<i>FE</i>	<i>RE</i>	<i>GMM</i>
<i>c</i>	-63.2991* (17.1727) {0.000}	-113.186* (11.3199) {0.000}	-27.6474 (22.3400) {0.2166}	
<i>FOWN</i>	-0.26348* (0.07139) {0.000}	0.1035* (0.0496) {0.0378}	0.1415 (0.1319) {0.2838}	-0.0271 (0.2033) {0.8939}
<i>MOWN</i>	-0.0484 (0.0833) {0.5603}	0.01993 (0.0719) {0.7818}	-0.22026* (0.14156) {0.1205}	-0.51612* (0.1712) {0.0029}
<i>IOWN</i>	0.02380* (0.0477) {0.030}	0.07566* (0.0307) {0.0220}	-0.26195 (-1.2108) {0.7482}	-0.4142* (0.1822) {0.8092}
<i>PAT</i>	-2.73e-06* (5.12e-07) {0.0000}	8.04e-07* (1.88e-07) {0.0000}	-9.31e-07 (5.91e-07) {0.1160}	1.58e-06 (1.35e-06) {0.2429}
<i>CFO</i>	-9.94e-08 (1.51e-07) {0.000}	-7.68e-08 (8.15e-08) {0.3466}	-2.23e-07 (4.12e-07) {0.5881}	-9.56e-07 (7.31e-07) {0.1924}
Model Parameters				
<i>R</i> ²	0.472	0.8300	0.088	
<i>Adj R</i> ²	0.452	0.7948	0.0514	
<i>F-Stat</i>	23.235	23.5952	3.2585	
<i>P(f-stat)</i>	0.0000	0.0000	0.000	
<i>D.W</i>	1.8	1.97	2.03	
Model Diagnostics				
<i>Hausman</i>			0.019	
<i>B-G for serial corr.</i>	0.893			
<i>B-P-G for Hetero.</i>	0.554			
<i>Ramsey Test</i>	0.421			
<i>Arbond(1)</i>				0.043
<i>Arbond(2)</i>				0.8432
<i>Instrument rank</i>				14
<i>j-stat</i>				0.3129
<i>P(j-stat)</i>				0.5758

Source: Researchers compilation (2017), () are standard errors; { } are p-values, * sig at 5%

Table 4.3. Show the regression results of the Pooled OLS, Random effects (RE) and fixed effects (FE) models. Meanwhile, the Hausman test statistic (Prob = 0.019) indicates that the RE method may give bias and inconsistent estimators when compared to FE model and hence the preference for the FE estimation. As shown in the results, the R^2 for the FE model is 0.8300 which implies that the model explains about 83% of the systematic variations in the dependent variable. The F-stat is 23.595 (p-value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The analysis of coefficients reveals that FOWN has a positive beta (0.1035) and significant (p=0.0378) at 5% and thus Foreign ownership is a significant factor influencing dividend payout. The positive coefficient suggests that more foreign ownership signals higher dividend payout policy. MOWN has a positive beta (0.0199) but not significant (p=0.7818) at 5%. IOWN has a positive beta (0.0756) and significant (p=0.0143) at 5% and thus Institutional ownership is a significant factor influencing dividend payout. The positive coefficient suggests that higher proportion off institutional ownership signals higher dividend payout policy. The performance of the control variables in the model shows that PAT is positive and significant at 5% while CFO is negative though not significant at 5%. The durbin-watson statistics of 1.97 confirms the absence of stochastic dependence in the model and hence the results are valid. Next, we examine the GMM results, the analysis of coefficients reveals that DOWN has a negative beta (-0.51612) and significant (p=0.003) at 5%. IOWN has a negative beta (-0.4142) and significant (p=0.0240) at 5%. The performance of the control variables in GMM shows that none passed the test of significance at 5%. One point to be emphasised is that table 4.4 for the GMM estimation results is the J-stat test of overidentifying restrictions and the Arellano-Bond test for autocorrelation error. The J-stat tests yield all p-values above 0.10, which means that a null hypothesis could not be rejected. Hence, over identification restrictions are valid. The AR(1) tests indicate that the residuals in first differences are correlated as expectation, while the AR(2) tests give p-values above 0.10, which means that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model are valid. On the overall, after controlling for endogeneity, ownership structure variables still maintain their statistically significant effect on dividend payout.

Dividend Adjustment Models

In this section, we address the divided ownership structure-dividend policy link within the context of a more robust model, theoretic and behavioural framework following Kumar (2004) Al- Gharaibeh, Zurigat Al-Harahsheh (2013) using the Full Adjustment Model (FAM), the Partial Adjustment Model (PAM) (Linter (1956), the Waud Model (WM) (Waud, 1966). The results are presented and analyze below;

Table 4.4: Full Adjustment Model Result

	<i>POLS</i>	<i>FE</i>	<i>RE</i>	<i>GMM</i>
<i>c</i>	0.09688* (0.5981) {0.8714}	2.81969* (1.1297) {0.01 31}	3.5463 (7.2823) {0.6266}	
<i>dERN</i>	-14.2457 (12.5887) {0.2586}	-49.0950* (15.6327) {0.0019}	-76.043 (51.8344) {0.1433}	-98.1557 (99.7832) {0.3303}
<i>dERN*FOWN</i>	-0.00321* (0.0527) {0.9514}	0.1035* (0.0496) {0.0378}	-0.03674 (0.089) {0.6815}	(1.2624) {0.3633}
<i>dERN*DOWN</i>	0.07372* (0.02399) {0.0023}	0.10974* (0.0516) {0.0344}	0.13167 (0.1817) {0.4691}	-1.2706* (0.3683) {0.0012}
<i>dERN*IOWN</i>	0.06340* (0.0324) {0.0517}	0.19610* (0.0461) {0.000}	-0.5338 (0.29726) {0.0734}	-1.8806 (1.4240) {0.1930}
<i>dERN*PAT</i>	-7.11e-07* (1.67e-07) {0.0000}	8.04e-07* (1.88e-07) {0.0000}	-2.22e-06 (1.56e-07) {0.4478}	63.9331**
<i>dERN*CFO</i>	2.60e-07 (6.00e-07) {0.000}	-7.68e-08 (8.15e-08) {0.3466}	4.79e-07 (6.31e-07) {0.4478}	-1.72e-05* (8.03e-06) {0.037}
Model Parameters				
<i>R</i> ²	0.094	0.2200	0.219	
<i>Adj R</i> ²	0.062	0.0223	0.192	
<i>F-Stat</i>	2.963	11.281	7.960	
<i>P(f-stat)</i>	0.000	0.027	0.000	
<i>D.W</i>	2.3	2.4	2.65	
Model Diagnostics				
<i>Hausman</i>		0.290		
<i>B-P-G for serial corr.</i>	0.331			
<i>B-G for Hetero.</i>	0.942			
<i>Ramsey Test</i>	0.672			
<i>Arbond(1)</i>				0.083
<i>Arbond(2)</i>				0.8432
<i>Instrument rank</i>				13
<i>j-stat</i>				0.0433
<i>P(j-stat)</i>				0.835

Source: Researchers compilation (2018), () are standard errors; { } are p-values, * sig at 5%

The Full Adjustment Model (FAM) links the change in dividend policy to the change in earnings, assuming that firms change their dividend payout ratio only if it makes sure that the change in its earning is permanent and can be sustained in the future. The Hausman test at p -value < 0.05 indicates that the RE method may give bias and inconsistent estimators when compared to FE model confirming the preference for the FE. As shown in the results, the R^2 for the FE model is 0.22 which implies that the full adjustment model explains about 22% of the systematic variations in the dependent variable. The F-stat is 11.281 (p -value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. The analysis of coefficients reveals change in earnings (dEARN) is negative (-49.0950) and significant ($p=0.000$) which reveals that dividend payout responds very strongly to change in earnings. The beta for dERN*FOWN is positive (0.1035) and significant ($p=0.0378$) at 5%. Hence the influence of foreign ownership on dividend payout is strongly moderated by earnings changes. The beta for dERN*DOWN is positive (0.1097) and significant ($p=0.0344$) at 5%. The beta for dERN*IOWN is positive (0.19610) and significant ($p=0.000$) at 5%. Hence the influence of Institutional ownership on dividend payout is strongly moderated by earnings changes. The performance of the control variables in the model shows that dERN*PAT is negative and significant. The durbin-watson statistics of 2.4 confirms the absence of stochastic dependence in the model and hence the results are valid. The performance of the variables in GMM estimation reveals that only dERN*DOWN are significant at 5%. The J-stat test of overidentifying restrictions and the Arellano-Bond test for autocorrelation error were conducted. The J-stat tests yield all p -values above 0.10, which means that a null hypothesis could not be rejected. Hence, over identification restrictions are valid. The AR(1) tests indicate that the residuals in first differences are correlated as expectation, while the AR(2) tests give p -values above 0.10, which means that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model are valid

Table 4.3: Partial Adjustment Model Result

	<i>POLS</i>	<i>FE</i>	<i>RE</i>	<i>GMM</i>
<i>C</i>	21.7704*	43.47735*	50.4786*	
	(2.7309)	(2.2979)	(11.3403)	
<i>c*dERN</i>	{0.000}	{0.000}	{0.000}	
	-2.1766	3.04174	7.9382	-2.1552*
	(2.7267)	(1.8435)	(6.2631)	(0.1084)
	{0.4253}	{0.1001}	{0.2059}	{0.000}

<i>c*dERN*FOWN</i>	-0.01761 (0.01282)	-0.04363* (0.01198)	-0.10019* (0.0338)	-0.4175** (0.2221)
<i>c*dERN*MOWN</i>	{0.1705}	{0.0003}	{0.0033}	{0.0616}
<i>c*dERN*IOWN</i>	-0.0011* (0.0118)	-0.00975 (0.0064)	-0.02021 (0.0326)	0.11516 (0.15155)
	{0.9294}	{0.1261}	{0.5210}	{0.4482}
	0.0071 (0.0139)	0.0041 (0.0182)	-0.0209 (0.0326)	-0.01258 (0.15328)
	{0.6115}	{0.8229}	{0.5210}	{0.9346}
<i>c*dERN*PAT</i>	7.04e-07* (2.87e-08)	1.20e-07* (1.56e-08)	1.34e-07 (6.78e-08)	-9.35e-08 (5.56e-07)
<i>c*dERN*CFO</i>	{0.0148}	{0.0000}	{0.0488}	{0.8667}
<i>c*DIV(-1)</i>	-742e-08 (6.48e-07)	-1.14e-07* (2.2e-08)	-2.13e-07 (2.56e-08)	-3.43e-07* (1.22e-07)
<i>dDIV₍₋₁₎</i>	{0.000}	{0.000}	{0.000}	{0.0053}
	0.15572 (0.01745)	0.2739* (0.0144)	0.2974* (0.01388)	0.47555* (0.0656)
	{0.000}	{0.000}	{0.000}	{0.000}
				0.4005* (0.1083)
				{0.000}
Model Parameters				
<i>R²</i>	0.4019	0.644	0.7262	
<i>Adj R²</i>	0.3789	0.552	0.7157	
<i>F-Stat</i>	17.4732	7.0245	68.991	
<i>P(f-stat)</i>	0.000	0.000	0.000	
<i>D.W</i>	1.8	2.1	1.6	
Model Diagnostics				
<i>Hausman(P-value)</i>		0.000		
<i>B-G for serial corr.</i>	0.110			
<i>B-P-G for Hetero.</i>	0.204			
<i>Ramsey Test</i>	0.444			
<i>Arbond(1)</i>				0.0506
<i>Arbond(2)</i>				0.9124
<i>Instrument rank</i>				24
<i>j-stat</i>				16.3158
<i>P(j-stat)</i>				0.0909

Source: Researchers compilation (2017), () are standard errors; { } are p-values, * sig at 5%

The Partial Adjustment Model (PAM) sees dividends are the results of a partial adjustment towards a target ratio. The changes in dividends are determined by the difference between last

year's dividend and this year's target payout level which is assumed to be a fixed proportion of the earnings. In any given year, firms adjust partially to the target dividend level. As shown in the results, the R^2 for the FE model is 0.644 which implies that the full adjustment model explains about 64.4% of the systematic variations in the dependent variable. The F-stat is 7.024 (p -value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The beta for $c*dERN$ is positive (3.04174) though not significant ($p=0.1001$) at 5%. The coefficient of -0.04363 for $c*dERN*FOWN$ is significant ($p=0.0003$) at 5%. In addition, $c*dERN*DOWN$ is negative (-0.00975) though not significant ($p=0.1261$) at 5%. The beta for $dERN*IOWN$ is positive (0.0041) but not significant ($p=0.8229$) at 5%. The coefficient of -0.273 for $c*DIV(-1)$ is significant ($p=0.0003$) at 5%. The performance of the control variables in the model shows that $c*dERN*PAT$ is positive and significant at 5%, while $c*dERN*FCF$ is negative though not significant at 5%. The durbin-watson statistics of 1.97 confirms the absence of stochastic dependence in the model and hence the results are valid. The performance of the variables in GMM estimation reveals that only $c*dERN$ maintained their statistical significance at 5%. In addition, the $c*DIV(-1)$ and $dDIV(-1)$ both lags of dividend and change in dividend respectively were significant at 5%. The J-stat test of overidentifying restrictions and the Arellano-Bond test for autocorrelation error were conducted. The J-stat tests yield all p -values above 0.10, which means that a null hypothesis could not be rejected. Hence, over identification restrictions are valid. The AR(1) tests indicate that the residuals in first differences are correlated as expectation, while the AR(2) tests give p -values above 0.10, which means that a null hypothesis of no second-order serial correlation could not be rejected.

DISCUSSION OF RESULT

From the baseline results in table 4.3, after controlling for endogeneity using the GMM, MOWN has a negative beta (-0.51612) and significant ($p=0.003$). Hence we reject the null hypothesis that Managerial ownership has no significant effect on dividend policy. An important body of literature exists on how ownership structure influences dividend policies. Especially the link between managerial ownership and dividend policy has been well documented (Wiberg, 2008). Short, Zang and Keasey (2002) in their study produced strong support for the hypothesis that a negative association exists between dividend payout policy and managerial ownership. This is because managers prefer to retain earnings in the firms rather than pay dividends to the shareholders and as such, the managers could use these earnings for their own private benefits. The study findings are in tandem with Harjito (2009) From the base-line results, institutional Ownership (IOWN) has a positive beta (0.0756) and significant ($p=0.0143$) at 5% and thus Institutional ownership is a significant factor influencing dividend payout. The positive coefficient suggests that higher proportion off institutional ownership signals higher dividend payout policy. IOWN has a negative beta (-0.4142) and significant ($p=0.0240$) at 5%. After controlling for endogeneity using the GMM, IOWN was found to be negative (-0.4141) and significant ($p=0.0240$) at 5%. The finding is in tandem with Short, Zang and Keasey (2002), Kouki and Guizani (2009) but at variance with Cook and Jeon (2006), Obema, El-Masry and Elsegini (2008). Foreign ownership (FOWN) has a positive beta

(0.1035) and significant ($p=0.0378$) at 5% and thus Foreign ownership is a significant factor influencing dividend payout. After controlling for endogeneity using the GMM, FOWN was found to be negative (-0.0271) though not significant ($p=0.8939$). Hence, based on the GMM results, we accept the null hypothesis that foreign ownership has no significant effect on dividend policy. The finding is in tandem with Obema, El-Masry and Elsegini (2008), Kouki and Guizani (2009), Baba (2009), Chai (2010) Ullahet et al.(2012) and Dandagoet al. (2015) However, the finding is at variance with Manos (2002) Short, Zang and Keasey (2002) , Cook and Jeon (2006)Kumar (2006) Bogonko (2013) and Vinh (2014). Results from the dividend adjustment models reveal that the effect of ownership structure variables on dividend payout is strongly moderated by earnings changes especially in the full adjustment model.

CONCLUSION AND RECOMMENDATION

The dividend policy is an issue that is very crucial both theoretically in corporate finance and also practically for investors and stakeholders. Dividends are the part of corporate earnings distributed to shareholders for their participation in the capital of a corporation. Dividend policy is vital for investors whether internal or external to the firm, because they consider dividends not only as a source of income but also a way to assess the firms in terms of investment. It is also the way of assessing the ability of a company to generate positive cash flow. However, dividend policy decision has been acclaimed to be one of the most controversial issues in corporate finance because of the complex interaction of factors that can influence it and the varied signalling implications it has on investors and other market players. This study examined the influence of ownership structure in dividend payments decision using the agency theoretical framework as a guide in the development of rational expectation regarding the influence. The panel regression using the Pooled Ordinary Least Square (OLS) technique and the Generalised Method of Moments (GMM) to address endogeneity concerns was used for the analysis within a base line and dynamic model framework. From the baseline results Managerial ownership has a significant effect on dividend policy, institutional Ownership (IOWN) has a positive beta and significant at 5% and IOWN has a negative beta and significant and Foreign ownership (FOWN) has a positive beta and significant at 5%. Results from the dividend adjustment models reveal that the effect of ownership structure variables on dividend payout is strongly moderated by earnings changes especially in the full adjustment model. Going forward, the study recommends that companies adopt a diverse ownership structure with elements of managerial, foreign and institutional presence as this can ensure that the dividend policy decision is one that is balanced and prevents expropriation, address agency issues and put the company in a sustainable path in the long run.

Recommendation for Further Studies

As a recommendation for further studies, other researchers can focus on investigating the effect of macro-economic environment on dividend payment policy of firms since the macro-economic environment significantly influences performance of companies. Similarly, researchers can also focus on financial firms as the emphasis of this study was on non-financial firms.

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