Dividend pay-out policy and firm financial performance: Evidence from Nigerian listed non-financial firms

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Abstract

This paper examined the relationship between dividend pay-out policy and financial performance of twenty-five non-financial firms listed on the Nigerian Stock Exchange between 2004 and 2013. Panel data methodology was employed and pooled Ordinary Least Squares (OLS) was used to estimate the coefficients of explanatory and control variables. The Return on Assets (ROA) served as surrogate for the dependent variable, profitability, while Dividend Pay-out ratio proxied for dividend policy and was the only explanatory variable. Result reveals a positive and significant relationship between dividend pay-out policy (DPO) and firm performance (ROA). This finding is consistent with some prior empirical studies and provides evidence in support of both Signaling and Bird–in-hand hypotheses of dividend policy theory.

Key Words: Dividend policy, Dividend per share, ROA, Signaling hypothesis, Nigeria

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1.0 INTRODUCTION

1.1 Background to the study

Dividend pay-out policy decision is acknowledged as one the most controversial areas of financial management. It is also considered, according to Baker and Powell (2000), to be one of the most important financial decisions that corporate managers encounter. Despite the numerous studies that have been done in this area, consensus is yet to be reached. Lease, John, Kalay, Lowenstein and Sarig (2000) define dividend policy as the practice that management follows in making dividend pay-out decision.

Dividend is the reward that is attributable to the shareholders of corporate entity from their investment in the business through the provision of equity share capital. It is from the profit realized by the business at the end of the year that is either distributed as dividend or re-invested back into the business as retained earnings. Whereas the shareholders would have loved greater part (if not all) of the profit made to be distributed to them as dividend, the management would prefer lower dividend to be distributed to the shareholders and larger part to be retained by the business for future investment and expansion.

The seminal work of Miller and Modigliani (1961) provide the foundation for the study of dividend policy in modern era. They argue that under certain perfect market conditions, dividend policy is irrelevant. Since then efforts have been made by researchers in building up the literature by considering situations where one or two of the perfect conditions as enunciated in the Miller and Modigliani irrelevant hypothesis are relaxed. Outcomes of these studies (although most of them were conducted in developed countries) were mixed.

This present study adds to the existing literature by examining the relationship between dividend policy and financial performance of non-financial firms in Nigeria, an emerging economy. It has
been observed that studies conducted in developing countries so far are limited, hence the need for this study.

The rest of the paper is organized as follows: Section 2 presents the literature review, which also incorporates the related empirical studies from other clime, particularly the developing countries. Section 3 discusses the methodology of the study. Results and discussion of the study are presented in section 4, while section 5 concludes the study.

1.2 Research objective

The primary objective of this study is to establish a relationship, if any, between dividend payout policy and financial performance of 25 listed non-financial firms in Nigeria.

2.0 LITERATURE REVIEW

2.1 Theoretical framework

Since the seminal work of Miller and Modigliani irrelevant hypothesis, several theories have been developed by researchers to explain dividend policy decision. We provide a brief summary of these theories.

MM Irrelevance Hypothesis: MM in their 1961 paper suggested that under certain assumptions about perfect capital market, dividend policy decisions being adopted by a firm will not affect its rate of returns and market value. They argued that regardless of how the firm distributes its income, the market value of the firm will not be affected because its value is determined by its basic earning power and its investment decision. This position has been largely criticized by several authors because in real life situations we have imperfect market conditions such as taxes, transaction costs, asymmetric information and agency costs (Gordon, 1961, 1962, Lease et al,
Bird-in-hand Hypothesis: This hypothesis opined that increase dividend payout decisions affect firm value positively. The proponents of this hypothesis argued that due to existence of market imperfections and uncertainty, dividends are valued differently from capital gains. Hence, investors would prefer the “bird-in-hand” (cash dividends) to “two-in-the-bush” (future capital gains). Although this hypothesis has been challenged by many researchers, yet it has received supports from studies conducted by Lintner (1962), Walter (1963), Gordon (1963), Bhattacharya (1979), Miller and Rock (1985).

Tax Preference Hypothesis: This hypothesis predicted that low-dividend payout ratios lower the rate of returns, which ultimately increases the market value of the firm and vice versa. It argued that the influence and treatment of taxes might have effect on income to be distributed by a firm. In most countries the tax rates which apply to dividends differ from capital gains tax rate. Hence, investors in different tax bracket will have different perception regarding whether to accept cash dividends or obtain capital gains (through disposal of the securities). For instance, according to the hypothesis, investors in high tax bracket might require higher pre-tax risk adjusted premium returns to hold stocks with higher dividend yield. Poterba and Summers (1984) and Kalay and Michaely (2000) provided evidence in support of tax preference hypothesis.

Clientele Effects Theory: This theory suggested that investors/ clienteles are affected differently by dividend policy decisions adopted by firms. While some investors will prefer companies that pay significant amount of their earnings in form of dividends, other group of investors may prefer the ones that retained higher proportion of their earnings. The different tax treatment of dividends and capital gains is considered as an important factor in investors having different
behaviours toward dividends and capital gains. For instance, firms that pay a large amount of their earnings as dividends will attract a client that prefers high dividend, while those in high-tax bracket will prefer firms that pay low dividends (or no dividends) and favour capital gains. Support for this theory include the works of Dhaliwal, Errickson and Trezevant (1999), Allen, Bemado and Welch (2000), Seida (2001) and Short, Zhang and Keasey (2002).

Agency Cost Hypothesis: In today’s corporate world, principal-agency relationship exists between the company’s shareholders (principal) and managers (agents). The managers are expected to act in the best interest of the shareholders at all times. In many cases, however, the hypothesis posited that managers tend to act in a way that is detrimental to the interest of the shareholders (for instance, by investing in negative NPV projects, by increasing their perquisites, etc). The hypothesis suggested that payment of dividends can be used to mitigate this agency costs in two ways. Firstly, by paying dividends the firm will also have the opportunity to access additional funds from the capital market. This will make it possible for the new investors, stakeholders and the general public to scrutinize the financials of the firm, thereby reducing the agency cost. Secondly, paying dividends will reduce the amount of excess fund available to managers which may not be utilized in the best interest of the owners of the business (shareholders). Studies conducted by Jensen (1986), Demsey and Laber (1992), Jensen, Solberg and Zern (1992), Gaver and Gaver (1993) and Al-Malkawi (2005) were consistent with this hypothesis.

Signaling Hypothesis: This hypothesis indicated that dividend announcements have valuable information, known as signals, relating to future earnings of the firm. An increase in the level of dividend payout, according to this hypothesis, sends a positive signal to the investors and the general public that the future earnings of the firm is bright. The reverse is the case for a firm that
reduces its dividend payout or did not even pay dividends. For the signal to be significant, the hypothesis suggested that the signal being sent by the firm through dividend announcements should be true. Thus, a bad firm (with low-or no dividend payout) should not be able to mimic a good firm (with high or increase payout) by declaring high dividend. The cost of the mimic should be high in order to discourage the bad firm from passing bad signal to the market. Pettit (1977), Asquith and Mullins (1983), Nissim and Ziv (2001), Travlos, Trigeorgis and Vafeas (2001) and Bali (2003) provided evidence consistent with the prediction of this hypothesis.

2.2 Related empirical studies

From the empirical literature the relationship between dividend pay-out ratio and performance is mixed. Some studies suggest a positive relationship while others support negative relationship. Few of such studies also confirmed no relationship. The debate on the directional effect on the relationship between the two variables continues.

Oyejide (1978) find a statistical significant relationship between current year dividends and past year net profit in study conducted in Nigeria in the 1970s.

Baker et al (2007) observe that Canadian firms paying dividends are remarkably larger in size with higher profits.

Al-Kuwari (2009) suggests that profitability ratio as the key determinant of the corporate dividend policy in listed firms of Gulf Co-operation Council countries, while Pandey (2001) identified it on Malaysian firms.

Afzal and Mirza (2010) find positive association of operating cash flow and profitability with dividend policy.

Uwuigbe, Jafaru and Ajayi (2012) investigate the relationship between the financial performance and dividend payout among 50 listed firms in Nigeria for 2006 to 2010. Result shows a significant and positive association between the performance of firms and the dividend pay-out. The study also reveals that ownership structure and firm’s size has a significant impact on dividend pay-out of firms.

Raei, Moradi and Eskandar (2012) examine dividend policies of Iranian listed firms. Results indicate a non-significant relationship between dividend policy and performance proxy, ROA. The study also shows that earning is positively associated with dividend policy.

Gul, Sajid, Razzaq, Iqbai, and Khan (2012) examine the influence of dividend policy on shareholders wealth (represented by market price per share) of 75 companies listed in Karachi Stock Exchange for duration of six years from 2005 to 2010. Using multiple regression and stepwise regression, result indicates a significant influence of dividend policy on wealth of shareholders for dividend paying companies.


Salehnezhad (2013) investigates corporate governance and dividend policy in companies listed in Tehran Stock Exchange for the period 2010 to 2012. Using fuzzy regression analysis, the
result shows that a positive relationship exists between financial performance (stock returns) and dividend policy.

Oyinlola and Ajeigbe (2013) examined the impact of dividend policy on the stock prices of 22 quoted companies in Nigeria during the period 2009 to 2013. Regression analysis, correlation analysis and Granger Causality Test were used to test research hypothesis on 110 observations. Findings reveal that both dividend payout and retained earnings are significantly relevant to the market per share of the companies.

Ouma and Murekefu (2013) sought to establish the relationship between dividend payout policy and financial performance of companies listed on the Nairobi Stock Exchange. Results indicate that dividend payout is a major factor affecting firm performance. The relationship between the variables is positive and significant.

Osegbu et al (2014) analyses the extent of relationships between dividend payment and corporate performance in the Nigerian banking industry between 1990 and 2010. Using regression models, the result shows no significant relation between dividend policy and performance. Interestingly, insignificant relationship occurs between dividend policy and other four explanatory variables (free cash flow, financial leverage, business risk and tax paid on dividend payment ratio).

Oyinlola, Oyinlola and Adeniran (2014) investigate the impact of performance on the dividend policy of two major brewery companies quoted on the Nigerian Stock Exchange for the period 2002-2010. Findings reveal that dividend policy is relevant and that a firm’s dividend policy is seen as a major determinant for a firm’s performance. Positive relationship exists between the dividend policy and performance.
3.0 METHODOLOGY

3.1 Data source
This study is empirical in nature. Relevant data was obtained from secondary source only (audited financial reports of the sampled firms).

3.2 Population and sample
The population of the study consists of all the 152 non-financial firms listed on the floor of Nigerian Stock Exchange as at the beginning of 2004. However, it is practically impossible for the writers to use all the firms for this study, as a result of non-availability of relevant data of some firms during the period of study. All financial firms (because of their specific characteristics) and non-financial firms that opened for business after 2004 were also excluded from the study. In all, twenty-five firms were randomly selected from the firms that qualified for selection covering the period 2004-2013.

3.3 Data instrument
Panel data methodology was adopted for the study. This simultaneously combined cross-sectional data with time series. Pooled Ordinary Least Squares was used to estimate the coefficients of the explanatory variables.

3.4 Variable description
Dependent variable: Return on Asset (ROA) is used to proxy for performance and it is the only dependent variable used in this study. It is measured by the ratio of profit before interest and tax to total assets.
Independent variable: Dividend pay-out ratio (DPO) is used to proxy for dividend pay-out policy. It is measured by the ratio of dividend paid to profit after tax. This is also the same as dividend per share.

Control variable: Three variables that are capable to influence profitability are used to control the dependent variable, ROA. These variables are firm’s size, asset tangibility and leverage.

Size: This is measured by the natural logarithm of total assets. Firm size is seen to have impact on financial performance of the firm (Chen and Ho, 2000 and Phung and Hoang, 2013). This explains the reason behind the introduction of firm size as a control variable in this study. Penrose (1959) argues that larger firms can enjoy economies of scale and these can have favourable impact on performance. We expect a positive relationship between the performance variable and firm size.

Asset tangibility: This is measured by the ratio of non-current asset to total assets. This is considered to be a major determinant of performance in the US and other developed countries. Mackie- Mason (1990) and Akintoye (2008) conclude that a firm with high fraction of plant and equipment (tangible assets) in the asset base influences its performance. The most common argument in the literature favours a positive relationship between the two variables.

Leverage: It is measured by the ratio of total debt to total assets. This is included as a control variable and can be used to test the disciplinary role of debt. The pecking order theory predicts a negative relationship between the performance variable and debt ratio. However, the agency theory predicts that higher leverage is expected to lower agency costs, reduce inefficiency and thereby lead to improvement in firm’s performance. Thus, the theory expects that a positive relationship exists between debt ratio and performance measure.
3.5 Hypothesis

The null hypothesis which the study wants to test is as stated below:

Ho: There is no significant relationship between dividend pay-out policy and firm financial performance.

3.6 Model specification

The model adopted for this study having regard to some studies in empirical literature is as stated in equation 3.1 below:

\[ ROA_{it} = \beta_0 + \beta_1 DPO_{it} + \beta_2 SIZE_{it} + \beta_3 TANG_{it} + \beta_4 LEV_{it} + e_{it} \] (3.1)

3.7 Validity and reliability

Data obtained for this study came from reliable source. The annual financial reports of firms used in the study were audited by professional audit firms and approved by the regulatory authorities in Nigeria—Securities and Exchange Commission and the Nigerian Stock Exchange for public consumption. More importantly, the data instruments employed for the study have been seen in financial management and financial economics literature to be ideal.

4.0 RESULTS AND DISCUSSION

4.1 Descriptive statistics

Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Standard deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.070</td>
<td>-0.192</td>
<td>0.372</td>
<td>0.075</td>
<td>0.287</td>
<td>2.553</td>
</tr>
<tr>
<td>DVP</td>
<td>0.432</td>
<td>0.000</td>
<td>11.371</td>
<td>0.784</td>
<td>11.106</td>
<td>153.445</td>
</tr>
<tr>
<td>SIZE</td>
<td>9.976</td>
<td>0.133</td>
<td>11.333</td>
<td>0.998</td>
<td>-3.561</td>
<td>33.524</td>
</tr>
<tr>
<td>TANG</td>
<td>0.395</td>
<td>0.007</td>
<td>10.440</td>
<td>0.670</td>
<td>13.643</td>
<td>204.970</td>
</tr>
<tr>
<td>LEV</td>
<td>0.280</td>
<td>0.000</td>
<td>0.911</td>
<td>0.262</td>
<td>0.481</td>
<td>-1.085</td>
</tr>
</tbody>
</table>

Source: Authors’ computation with the use of SPSS Version 17.0
4.2 Correlation

Table 2 presents the correlation matrix of the variables used in the study. From the table we observe that ROA (financial performance) is positively associated with DPO (dividend pay-out decision proxy) at 10% level. For the controlled variable SIZE, ROA is positively associated with it at 1%. In line with what obtains in the financial literature, ROA is negatively associated with leverage (debt proxy). However, the relationship between ROA and asset tangibility is negative but insignificant.

For unbiased inferences to be made correlation alone cannot be used. This study employs the pooled simple OLS to estimate the coefficients of the explanatory and controlled variables. Before the results of the regression are presented there is need for the multicollinearity test to be conducted. In line with the submission of Gujarati (2003) and Rumsey (2007) where the sig-value of two explanatory variables in a correlation coefficient test is at least 0.7, shows that high multicollinearity exists between the two variables. In the same vein, Gujarati (2003) argues that if Variance Inflation Factor (VIF) of a variable is above 10 and Tolerance value is less than 0.1, then there is existence of high multicollinearity between the variables.

From Table 2, none of the variables have sig-value of 0.8 and above; hence no high multicollinearity exist between these variables. Also in Table 3, none of the explanatory/controlled variables have VIF of 10 and above. Furthermore, Tolerance values of the explanatory and control variables are above 0.1. These results indicate that no problem of high multicollinearity is in the model.

The F-statistics value of 25.602 and prob value of 0.000 reveal that the model as a whole is fit.
Table 2: Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>DPO</th>
<th>SIZE</th>
<th>TANG</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPO</td>
<td>0.090* (0.108)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.184*** (0.004)</td>
<td>0.107* (0.090)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TANG</td>
<td>-0.008 (0.897)</td>
<td>-0.049 (0.444)</td>
<td>-0.504*** (0.000)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.483*** (0.000)</td>
<td>0.036 (0.573)</td>
<td>0.059 (0.354)</td>
<td>-0.059 (0.349)</td>
<td>1</td>
</tr>
</tbody>
</table>

*, ** and *** indicate significant at 10%, 5% and 1% levels respectively.
sig-values are in parentheses.
Source: Authors’ computation with the use of SPSS Version 17.0

Table 3 presents the regression results of the relationship between the dependent variable (ROA) and the explanatory variable (DPO) as well as the three controlled variables (SIZE, TANG and LEV). It also shows the results of the Variance Inflation Factor (VIF) and Tolerance Values of the explanatory and control variables.

The Table 3 reveals a positive and significant relationship between the profitability measure (ROA) and dividend pay-out policy decision (DPO). It shows that companies that earn more profit pay high dividend. In other words, the financial performance influences the dividend pay-out decision of Nigerian companies during the period of study. The outcome is consistent with some previous studies of Brigham (1995), Kake and Noe (1990), Lazo (1999), Baker (2007), Al-Kuwari (2009), Afzal and Miza (2010), Agyei and Marfo-Yiadom (2011), Uwuigbe, et al (2012), Adediran and Alade (2013), Salehnezhad (2013) and Oyinlola, et al (2014).
In line with theoretical expectation, the relationship between ROA and control variable firm size is positive and significant at 1%. This is consistent with the findings of Chang and Rhee (2001) and Ho (2003).

Furthermore, in Table 3, ROA has a negative and significant relationship with another control variable, leverage at 1% level. This is in line with some prior empirical studies [as in Salawu (2007), Kalu (2009), Abdeljawad et al (2013), Haron (2014)] and provides evidence in support of pecking order theory.

However, the relationship between ROA and the third control variable, Tangibility is not significant.

### Table 3 Regression results

Dependent variable: ROA

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROA</th>
<th>VIF</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.715*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.088)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPO</td>
<td>1.801*</td>
<td>1.013</td>
<td>0.988</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>3.992***</td>
<td>1.355</td>
<td>0.738</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TANG</td>
<td>1.491</td>
<td>1.343</td>
<td>0.745</td>
</tr>
<tr>
<td></td>
<td>(0.137)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-9.221***</td>
<td>1.006</td>
<td>0.994</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.483</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Statistics</td>
<td>25.602***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>1.989</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>250</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*, ** and *** indicate significant at 10%, 5% and 1% levels respectively. p-values are in parentheses

Source: Authors’ computation with the use of SPSS Version 17.0
5.0 CONCLUSION, RECOMMENDATION AND FUTURE STUDY

5.1 Conclusion
This study empirically investigated the relationship between dividend pay-out policy and financial performance of twenty-five non-financial firms that were listed on the Nigerian Stock Exchange for the 10-year period, 2004-2013.

The Return on Asset (ROA) was used as a surrogate for financial performance while dividend per share (DPO) proxied for dividend pay-out policy decision. The outcome of the study showed a positive and significant relationship between ROA and DPO. The outcome suggested that firms that pay dividend as at when due to their equity shareholders show increase in profitability and vice versa. It is safe to infer from the outcome of the study that payment of dividend by firms has information contents. Most shareholders not only prefer to invest in firms that pay dividend promptly, they are likely to react negatively (by disposing their shares and re-invest in firms that show promising returns and high dividend payment) to firms that are either making reduced dividend or no dividend payment for some time. This provides evidence in support of both Bird-in-hand Hypothesis and Signaling Hypothesis.

5.2 Recommendations
Management of companies should endeavour to put in place robust dividend policy for their firms. They should also invest in projects that give positive Net Present Values, thereby generating huge earnings, which can be partly used to pay dividends to their equity shareholders. The Nigerian Companies and Allied Matters Act 2004 specifically states that dividend can only be paid out of profit. In the same vein, would-be investors (both local and foreign) will be encouraged to have stake in firms that pay dividends consistently.
5.3 Future study

In order to improve this study, efforts should be made in the future to increase the sample size of the firms and the time horizon (say for at least twenty years). Furthermore, classification of the firms into specific sectors and deep study of each sector will produce a more robust result.

References


SPSS for Windows version 17.0 (2013): LEAD Technologies, Inc.

