“How Does Dividend Policy Affect Firm Performance? A Ghanaian Case”

AUTHORS
Mohammed Amidu

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HOW DOES DIVIDEND POLICY AFFECT PERFORMANCE OF THE FIRM ON GHANA STOCK EXCHANGE?

Mohammed Amidu*

Abstract

The study examines whether dividend policy influences firm performance in Ghana. The analyses are performed using data derived from the financial statements of listed firms on the GSE during the most recent eight-year period. Ordinary Least Squares model is used to estimate the regression equation. In order to operationalise ‘dividend policy’, the study coded: ‘1’ to represent the company has a policy to pay dividend; while ‘0’ to represent the company has a policy not to pay dividends. The results show positive relationships between return on assets, dividend policy, and growth in sales. Surprisingly, study reveals that bigger firms on the GSE perform less with respect to return on assets. The results also reveal negative associations between return on assets and dividend payout ratio, and leverage. The results of the study generally support previous empirical studies. The main value of this study is the identification of how dividend policy affects performance of firms listed on the Ghana Stock exchange.

Key words: Dividend policy, Price, firms, Listed Ghana.

JEL Classification: G35; L25.

1. Introduction

The subject matter of dividend policy remains one of the most controversial issues in corporate finance. For more than half a century, financial economists have engaged in modeling and examining corporate dividend policy. Black (1976) hinted that, “The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that don’t fit together”. In over thirty years since then a vast amount of literature has been produced examining dividend policy. Recently, however, Frankfurter et al. (2002) concluded in the same vein as Black and Scholes (1974) that: The dividend “puzzle”, both as a share value-enhancing feature and as a matter of policy, is one of the most challenging topics of modern financial economics. Forty years of research have not been able to resolve it. Research into dividend policy has shown not only that a general theory of dividend policy remains elusive, but also that corporate dividend practice varies over time, among firms and across countries.

The patterns of corporate dividend policies not only vary over time but also across countries, especially between developed, developing and emerging capital markets. Glen et al. (1995) found that dividend policies in emerging markets differed from those in developed markets. They reported that dividend payout ratios in developing countries were only about two thirds of that of developed countries. Ramcharran (2001) also observed low dividend yields for emerging markets. There has been emerging consensus that there is no single explanation of dividends. According to Brook et al. (1998) there is no reason to believe that corporate dividend policy is driven by a single goal. In addition, not much research has been done on the impact of dividend policy on share prices in emerging equity markets. In view of these, the present research would try to resolve the problems faced by the listed companies in Ghana by analyzing the dividend payments of all the companies listed on Ghana Stock Exchange (GSE) and evaluate its effect on their share price.

2. Research Gap and Problem Statement

Management are in a dilemma about whether to pay a large, small or zero percentage of their earnings as dividends or to retain them for future investments. This has come about as a result of the need for management to satisfy the various needs of shareholders. For instance, shareholders

* University of Ghana Business School, Ghana.
who need money now for profitable investment opportunities would like to receive high dividends now. On the other hand, shareholders who would like to invest in the future will prefer dividends to be retained by the company and be reinvested. Also, in Ghana dividends are subject to 10% rate of withholding tax whereas capital gains on shares listed on GSE are exempt from tax (see IRS Act, 2000). This makes capital gains on shares lowly taxed, thus, some shareholders prefer low dividends to high dividends in order to take the benefits accruing on capital gains.

In addition, some country laws prohibit companies from paying dividends if so doing will make a company insolvent. For instance, section 71(1) of the Companies Code inter alias states that return or distribution of any of its assets to its shareholders unless:

a) the company is able, after such payment, return or distribution, to pay its debts as they fall due;

b) the amount or value of such payment, return or distribution does not exceed its income surplus immediately prior to the making of such payment, return or distribution.

Furthermore, Section 30(1) of Banking Act (2004) Act 673 states that a bank shall not declare or pay dividend on its shares unless it has:

a) completely written off all its capitalized expenditure;

b) supplied the minimum capital adequacy ratio requirements; and

d) completely written off all its accumulated operating losses from its normal operations.

Since management are dealing with competing interests of various shareholders, the kind of dividend policy they adopt by them may have either positive or negative effects on the share prices of the company. They are therefore unable to forecast with certainty to what extent the policy will affect their share prices of their firms.

The questions therefore to be asked are: Should the firm pay out money to its shareholders, or should the firm take that money and invest it for its shareholders? If a firm decides to pay a dividend, of what percentage of its earnings? Given the above, will this affect the share price of the firm? Would the company lose some shareholders if they adopt a particular dividend policy? For these reasons, the present study builds on Amidu and Abor (2006) by examining the effects of dividend policies on share prices of companies listed on the Ghana Stock Exchange. The study is organized as follows: the next section reviews the relevant literature, section four looks at the research methodology. Section five discusses and analyzes data and the final section concludes the study.

3. Literature Review

The theoretical principles underlying the dividend policy and its impact on firms can be described either in terms of dividend irrelevance or dividend relevance theory. Miller and Modigliani (1961) irrelevance theory forms the foundational bedrock of modern corporate finance theory. Miller and Modigliani argued that dividend policy is irrelevant for the cost of capital and the value of the firms in a world without taxes or transaction cost. They showed that when investors can create any income pattern by selling and buying shares, the expected return required to induce them to hold firm’s shares will be invariant to the way the firm packages its dividend payments and new issues of shares. Since the firm’s assets, investments opportunities, expected future net cash flows and cost of capital are not affected by the choices of dividend policy, its market value is unaffected by any change in the firm’s payout pattern. Thus, dividend policy is irrelevant and firm can choose any payout pattern without affecting their value. MM theory implies that dividend payout will fluctuate as a by-product of the firm’s investments and financing decisions. This will not exhibit a systematic pattern over time. Miller and Modigliani (1961) argued that the firm’s value is determined only by its basic earning power and its business risk.

The clientele effect also provides an alternative argument for the irrelevance of dividend policy, at least when it comes to valuation. In summary, if investors migrate to firms that pay the dividends that most closely match their needs, no firm’s value should be affected by its dividend policy. Thus, a firm that pays no or low dividends should not be penalized for doing so, because its
investors do not want dividends. Conversely, a firm that pays high dividends should not have a lower value, since its investors like dividends. This argument assumes that there are enough investors in each dividend clientele to allow firms to be fairly valued, no matter what their dividend policy is.

Various authors on the effects of dividend policy on share price have criticized the irrelevance theory of Miller and Modigliani (MM) (1961). They argued that in an imperfect market, those assumptions outlined by MM do not work. For instance, companies do incur floatation cost in their bid to raise additional capital whereas investors incur transaction cost whenever they are selling or buying shares. In Ghana, companies pay brokerage fees or underwriting cost when issuing new shares. Again, investors pay income tax on the dividend income they receive. Also in Ghana, dividends are subject to 10% withholding tax while capital gains are exempt from taxes. Furthermore, the insiders have more access to information than the outsiders, thus the market does not fully reflect all available information. Clearly, these show that dividend policy has tremendous effect on share prices valuation in an imperfect market like Ghana Stock Exchange. A number of factors have been identified in previous empirical studies about the relevance of dividend policy of firms including transaction cost, uncertainty resolution, tax, accounting manipulation behavioral finance, cashflow, agency cost and signaling (see Allen and Michaely, 2002; Gordon, 1961, 1962; Bhattacharya, 1979; Shefrin and Statman, 1984; Easterbrook, 1984; Amidu and Abor, 2006).

A rational argument in favor of dividends consists of transaction cost. An investor who wants to receive a regular income from her security holdings has a choice between buying dividend-paying stocks and cashing in the dividends, and buying non-dividend paying stocks and regularly selling part of her portfolio. For a small individual investor the transaction costs of cashing in the dividends may be significantly smaller than the transaction costs associated with selling a part of the stocks (Allen and Michaely, 2002).

The “Bird in Hand” theory of Gordon (1961, 1962) argues that outside shareholders prefer a high dividend policy. They prefer a dividend today to a highly uncertain capital gain from a questionable future investment. A number of studies demonstrate that this model fails if it is posited in a complete and perfect market with investors who behave according to notions of rational behavior (See Miller and Modigliani, 1961; Bhattacharya, 1979 etc). Nonetheless, the original reasoning of Gordon (1961) is still frequently sited.

Farrar and Selwyn (1967) assume that investors maximize after tax income. In a partial equilibrium framework, investors have two choices. Individuals choose the amount of personal and corporate distributions as dividends or capital gains. They reasoned that if the effective marginal capital gains tax paid by shareholders is less than the marginal rate of tax that would be paid on income from dividends then a shareholder is better off with zero dividends. For example if capital gains tax is higher than tax paid on dividends then investors would like the company to retain earnings. Litzenberger and Ramaswamy (1979) in their Tax Preference theory argued that investors want companies to retain earnings and thus provide returns in the form of lower-taxed capital gains rather than heavily taxed dividends. In other words, low dividend pay out ratio lowers the required rate of return and increases the market value of the firm’s shares.

Brennan (1970) on the other hand extends Farrar and Selwyn’s results by considering how the prices of stocks might be affected by different dividend policies. He assumed that the market prices of stocks would adjust in such a way that the after tax rate of return received by holders of a company’s stock would be the same no matter what dividend policy the company adopts. In Brennan’s model, buyers and sellers of the stock would require the same after tax return from the stock even if the company adopts a different dividend policy. This means that if a firm adopts a high dividend payout policy, and if shareholders have to pay higher taxes as a result, the firm’s stock will have a lower price in order to maintain the same after tax rate of return that shareholders require.

An important reason for companies to pay dividends may be that companies that pay healthy dividends are perceived as being relatively honest and less subject to accounting manipulations. Barron (2002) argues: “Embrace stocks that pay healthy dividends. A bird in the hand is better than two in the bush (...). Healthy dividend payments also indicate that companies are generating real earnings rather than cooking the books”. The earlier mentioned Wall Street Journal
article also states: “Dividends are paid by companies that grow earnings over a longer period of time. [Buying dividend paying stocks] is a way of getting into growth through the book door, in a lower-risk way.” This argument is closely related to the uncertainty resolution argument.

Shefrin and Statman (1984) develop a theory of dividends based on the fact that, even if the amount of cash received is the same, it can still make a difference for the investor whether the cash comes in the form of dividends or capital gains. Their model is based on a behavioral theory. In this theory investors want dividends because of self-control. This argument comes down to investors wanting to restrict themselves from consuming too much in the present. They don’t want to dip into capital and, therefore, they only allow themselves to consume current income such as dividends. The effect described by Shefrin and Statman (1984) is especially strong for elderly (retired) investors, as they have little or no labor income and rely more heavily on income from their securities holding. Shefrin and Statman (1984) refer to this as the behavioral life cycle.

This theory shows some resemblance with Gordon’s (1961) theory. However, the theory of Gordon is based on uncertainty towards future dividends, while the theory of Shefrin and Statman (1984) is based on investors who prefer to consume from dividends instead of capital gains.

Free cash flow is the cash flow that remains after all positive net present value (NPV) projects are undertaken. According to the overinvestment theory of Jensen (1986), managers aim to expand the size of the firm, and thus may take on negative NPV projects instead of paying dividends. Managers consider a large firm to be more prestigious and they expect to earn more compensation than they would in a small firm. This is obviously not in the interest of the existing shareholders. Black (1976) argues that paying dividends can mitigate a potential overinvestment problem, because they reduce the amount of free cash flow. This theory is difficult to test in the context of our research. The reason is that it is difficult to convey the notion of a negative Net Present Value project to individual investors who are not aware of finance theory. One possible way to test this theory is by linking free cash flow to down markets or economic downturns. The assumption is that there are less growth opportunities under such circumstances.

Even if a firm does not have free cash flow, dividend payments can still be useful for the shareholders in order to control the overinvestment problem. Easterbrook (1984) argues that dividends reduce the overinvestment problem because the payment of dividends increases the frequency with which firms have to go to equity markets in order to raise additional capital. In the process of attracting new equity, firms subject themselves to the monitoring and disciplining of these markets. This lowers agency cost. A share repurchase creates the same monitoring effect. The agency theory was also advanced by Jensen and Meckling (1976) to explain dividend relevance. They showed that agency cost arises when management serves its own interests instead of those of shareholders.

According to the information content of dividends or signaling theory, firms, despite the distortion of investment decisions to capital gains, may pay dividends to signal their future prospects. The intuition underlying this argument is based on the information asymmetry between managers (insiders) and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders. Here, managers are thought to have the incentive to communicate this information to the market. Bhattacharya (1979), John and William (1985), and Miller and Rock (1985) argued that information asymmetries between firms and outside shareholders may induce a signaling role for dividends. They show that dividend payments communicate private information in a fully revealing manner. The most important element in their theory is that firms have to pay out funds regularly. An announcement of dividends increase is taken as good news and accordingly the share price reacts favourably, and vice-versa. Only good-quality firms can send signals to the market through dividends and poor quality firms cannot mimic these because of the dissipative signaling cost (for e.g. transaction cost of external financing, or tax penalty on dividends, distortion of investment decisions). Therefore, a similar reasoning applies to recurrent share buy-backs.

Common stock repurchase is a well-known alternative to cash dividends. Both ways of paying out cash are useful to mitigate the agency problems that are raised by Easterbrook (1984) and Jensen (1986). A large number of academic papers find that share buy-backs are especially useful to signal that the stock price of the company that buys back its shares is undervalued. A
number of studies, including Comment and Jarrell (1991) and Ikenberry, Lakonishok, and Vermaelen (1995, 2000) find that share buy-back announcements are associated with significantly positive abnormal returns. Ikenberry, Lakonishok, and Vermaelen (1995, 2000) have also analyzed the long-run performance of US and Canadian companies after share buy-backs. In those studies a significantly long-run positive abnormal return is found.

4. Research Methodology

The study examines whether dividend policy influences firm’s performance. A sample of firms that have been listed on the GSE over the recent eight year period (1997-2004) was considered. At the time of this study twenty-five companies were listed on GSE. The data were derived from the annual reports of listed companies on GSE. The GSE data consist of Balance Sheet, Income Statements, Financial ratios and other relevant information for all publicly quoted companies. The data are available on Compact Disks (CDs) from the year 1997 to date.

The study considered an instance where a firm may not be in position to pay dividend (see Kim and Maddala, 1992). In order to operationalise ‘dividend policy’; the following codes were used:

- 1 = the company has a policy to pay dividend;
- 0 = the company has a policy not to pay dividends.

The study uses accounting measure of performance such as Return on Assets (ROA) and Return on Equity (ROE) as the dependent variables. However, as a robustness check, the study also uses TOBIN’S q as a proxy for market based measures ratio. The q is defined as the ratio of the market value of assets (defined as the book value of assets, plus the market value of common stock, minus the book value of common stock, minus deferred tax expense) to book value of assets.

The explanatory variables include dividend policy (POLICY) and the payout ratio (PAY) which is given as dividend per share divided by earnings per share. Included in the study are other control variables that might affect the value of firm not captured by the dividend policy. A proxy for firm size (SIZE) is the logarithm of total assets to control for size differences across the sample firms. The firm’s leverage (LEV) is measured as the ratio of total debt divided by the book value of assets. Jensen and Meckling (1976) argue that debt is a disciplining mechanism that alleviates agency problems between management and other shareholders. The firm’s future investment opportunities can also affect the firm value. Growth in sales (GROWTH) is used as proxies for investment opportunities.

The companies selected ranged from old to newly established ones, and some companies were de-listed during the study period. Therefore the number of observation for each company is different. In order to gain the maximum possible observations, pooled panel crossed-section regression data are used. Panel data involve the pooling of observations on a cross-section of units over several time periods and facilitate identification of effects that are simply not detectable in pure cross-sections or pure time-series studies. The panel regression equation differs from a regular time-series or cross section regression by the double subscript attached to each variable. The general form of the panel data model can be specified more compactly as:

\[ Y_{it} = \alpha + \beta X_{it} + \epsilon_{it}, \]  

the subscript \( i \) representing the cross-sectional dimension and \( t \) denoting the time-series dimension. The left-hand variable \( Y_{it} \), represents the dependent variable in the model, which is the firm’s value. \( X_{it} \) contains the set of independent variables in the estimation model, \( \alpha \) is taken to be constant over time \( t \) and specific to the individual cross-sectional unit \( i \). If \( \alpha \) is taken to be the same across units, Ordinary Least Squares (OLS) provides a consistent and efficient estimate of \( \alpha \) and \( \beta \). The model takes the following form:

\[ ROA_{it} = \beta_0 + \beta_1 POLICY_{it} + \beta_2 PAY_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 GROWTH_{it} + \epsilon_{it}, \]
\(ROE_{it} = \beta_0 + \beta_1 POLICY_{it} + \beta_2 PAY_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 GROWTH_{it} + \epsilon_i\), \(i = 1, 2, 3, 4, 5\)  

\(TOBIN'Sq_{it} = \beta_0 + \beta_1 POLICY_{it} + \beta_2 PAY_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 GROWTH_{it} + \epsilon_i\), \(i = 1, 2, 3, 4, 5\)

where: 
- \(ROA_{it}\) = ratio of pre-tax profits to total assets for firm \(i\) in period \(t\);  
- \(ROE_{it}\) = ratio of post-tax profits to equity for firm \(i\) in period \(t\);  
- \(TOBIN'Sq_{it}\) = ratio of market value of assets to book value of assets for firm \(i\) in period \(t\);  
- \(POLICY_{it}\) = dummy variable for dividend policy for firm \(i\) in period \(t\);  
- \(PAY_{it}\) = dividend per share divided earning per share for firm \(i\) in period \(t\);  
- \(SIZE_{it}\) = log of total assets for firm \(i\) in period \(t\);  
- \(LEV_{it}\) = ratio of total debt to total capital for firm \(i\) in period \(t\);  
- \(GROWTH_{it}\) = growth in sales for firm \(i\) in period \(t\);  
- \(\epsilon\) = the error term.

5. Empirical Analysis

5.1. Descriptive Statistics

Table 1 provides a summary of the descriptive statistics of the dependent and explanatory variables. The mean (median) Return on Assets (measured by firm pre-tax profit divided by total assets) of sampled firms was 0.1009 (0.0993). However, the average (median) Return on Equity is 27.44% (22.04%) and the average (median) market to book value for the firms is 1.0197 (0.9810). The mean (median) of dividend policy is 72.83% (100.00%). This means that on average more than 70% of the firms listed on GSE have a policy to pay dividend with the average (median) dividend payout ratio (measured as dividend per share/earnings per share) being 37.21% (33.88%). This means, on the average, firms pay about 37% of their profits as dividends with the 64% of the earning retained for future growth needs of the firm. The firm size, determined as the natural logarithm of total assets has a mean (median) of 1,180,000 (86,200). Debt to equity ratio on average is 62.29 (54.43%). The average (median) growth rate in sales is 32.21% (28.06%).

Table 1

Descriptive statistics of companies listed on GSE

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Maximum</th>
<th>Median</th>
<th>Minimum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.1009</td>
<td>0.2577</td>
<td>0.5876</td>
<td>0.0993</td>
<td>-2.9220</td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>0.2744</td>
<td>0.3160</td>
<td>1.2800</td>
<td>0.2204</td>
<td>-0.6479</td>
<td></td>
</tr>
<tr>
<td>TOBIN'Sq</td>
<td>1.0197</td>
<td>0.7401</td>
<td>3.9009</td>
<td>0.9810</td>
<td>-1.6450</td>
<td></td>
</tr>
<tr>
<td>POLICY</td>
<td>0.7283</td>
<td>0.4461</td>
<td>1.0000</td>
<td>1.0000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PAY</td>
<td>0.3721</td>
<td>0.3920</td>
<td>3.6261</td>
<td>0.3388</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SIZE (g'dm)</td>
<td>1,800,000</td>
<td>6,280,000</td>
<td>74,100,000</td>
<td>86,200</td>
<td>651</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.6229</td>
<td>0.6123</td>
<td>7.8494</td>
<td>0.5443</td>
<td>0.0004</td>
<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.3221</td>
<td>0.3025</td>
<td>1.3597</td>
<td>0.2806</td>
<td>-0.7500</td>
<td></td>
</tr>
</tbody>
</table>
5.2. Regression Results

Table 2 reports regression results between the dependent variable (firm value) and explanatory variables. The $R^2$ indicates that 74 percent of the firms’ return on assets are explained by the variables in the model. The results show a positive and significant relationship between return on assets and dividend policy. The significance and the positive coefficient of the regressor, dividend policy, indicate that when a firm has a policy to pay dividend it influences its profitability. This is in line with the information content of dividend or signaling theory by Bhattacharya (1979), John and William (1985) and Miller and Rock (1985). This finding is also consistent with empirical evidence (see Allen and Michaely, 2002; Gordon, 1961, 1962; Ross, et al 2002; Shefrin and Statman 1984; Easterbrook, 1984) that dividend policy affects a firm share price. The dividend payout ratio was also included in the model to assess whether if a firm policy to pay dividend and eventually pays dividend affect its return on assets. The results indicate a statistically significant and negative relationship between profitability and dividend payout ratio. The negative coefficient could mean that if a firm pays dividend it reduces its retained earnings which affects its internally generated financing. The dividend payout ratio is measured as dividend per share divided by earnings per share.

Table 2 also shows how some of the other firm level characteristics affect firm’s profitability on the GSE. The study selected firm size, leverage and future growth opportunity. The results show that the coefficient of firm size and leverage are negative and statistically insignificant for the panel data estimations. The results seem to suggest that, for listed firms on GSE, size and leverage do not necessarily influence their return on assets. Surprisingly, the negative association of firm’s size and return on assets indicates that, increasing size is associated with decrease in profitability. This position seems to contradict with the existing literature.

Growth in sales is used as proxy for the firm’s future prospects and investment opportunities. The variable is found to have statistically significant positive associations with performance. This is indicative of the fact that, growing firms have a prospect of generating more returns for its owners. This is also consistent with existing theory.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.044908</td>
<td>0.010260</td>
<td>4.377015</td>
<td>0.0000</td>
</tr>
<tr>
<td>POLICY</td>
<td>0.104462</td>
<td>0.013708</td>
<td>7.620510</td>
<td>0.0000</td>
</tr>
<tr>
<td>PAY</td>
<td>-0.067098</td>
<td>0.019462</td>
<td>-3.447654</td>
<td>0.0007</td>
</tr>
<tr>
<td>SIZE</td>
<td>-4.32E-16</td>
<td>8.75E-16</td>
<td>-0.494354</td>
<td>0.6218</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.003001</td>
<td>0.007649</td>
<td>-0.392337</td>
<td>0.6954</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.017453</td>
<td>0.007136</td>
<td>2.445936</td>
<td>0.0156</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.741970</td>
<td></td>
<td>Mean dependent var.</td>
<td>0.458809</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.690705</td>
<td>S.D. dependent var.</td>
<td>0.365753</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.203411</td>
<td>Sum squared resid.</td>
<td>6.247777</td>
<td></td>
</tr>
</tbody>
</table>

To check the robustness of the results and to avoid the problem of multicollinearity (the correlation between return of asset, return on equity and Tobin’s q) in the model, equations 3 and 4 were constructed. The return on equity is regressed against the five explanatory variables. These variables include dividend policy, dividend payout ratio, size, leverage and growth (see Table 3). The results indicate that dividend policy is positive, and statistically significant in explaining their return on equity. The results also show that there is negative relationship between return on equity
on one hand and dividend payout ratio and leverage on the other hand. Apart from the size, the variables included in equations 2 and 3 produced similar results.

The results with Tobin’s q produced contra results. Table 4 shows that market value of firms has a negative relationship with dividend policy and the firm’s size but is positively related to dividend payout ratio, leverage and growth. Surprisingly, the coefficients of all the variables are statistically insignificant. This means that the share value of a firm listed on GSE is more determined by variables other than the payout ratio, size, leverage and growth.

### Table 3

**Regression Model Results (Dependent Variable: ROE)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.082966</td>
<td>0.049111</td>
<td>1.689333</td>
<td>0.0932</td>
</tr>
<tr>
<td>POLICY</td>
<td>0.374129</td>
<td>0.063084</td>
<td>5.930664</td>
<td>0.0000</td>
</tr>
<tr>
<td>PAY</td>
<td>-0.230462</td>
<td>0.059746</td>
<td>-3.857360</td>
<td>0.0002</td>
</tr>
<tr>
<td>SIZE</td>
<td>4.79E-15</td>
<td>3.68E-15</td>
<td>1.301732</td>
<td>0.1950</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.016899</td>
<td>0.029647</td>
<td>-0.569992</td>
<td>0.5695</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.015629</td>
<td>0.036929</td>
<td>0.423223</td>
<td>0.6727</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.641403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.569683</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.203367</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.000000</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Table 4

**Regression Model Results (Dependent Variable: TOBIN’Sq)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.888754</td>
<td>0.149329</td>
<td>5.951669</td>
<td>0.0000</td>
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<tr>
<td>POLICY</td>
<td>-0.013534</td>
<td>0.187314</td>
<td>-0.072251</td>
<td>0.9425</td>
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<td>PAY</td>
<td>0.231873</td>
<td>0.174130</td>
<td>1.331613</td>
<td>0.1852</td>
</tr>
<tr>
<td>SIZE</td>
<td>-1.53E-14</td>
<td>1.08E-14</td>
<td>-1.421181</td>
<td>0.1576</td>
</tr>
<tr>
<td>LEV</td>
<td>0.062072</td>
<td>0.087158</td>
<td>0.712176</td>
<td>0.4776</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.105399</td>
<td>0.174208</td>
<td>0.605016</td>
<td>0.5462</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.529553</td>
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<td>1.019656</td>
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</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.400616</td>
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<td>0.740139</td>
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<tr>
<td>S.E. of regression</td>
<td>0.573015</td>
<td></td>
<td>44.32670</td>
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<tr>
<td>Prob (F-statistic)</td>
<td>0.000000</td>
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<td>4.107056</td>
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### Conclusion

The main objective of the study is to examine corporate dividend policies of publicly traded companies in Ghana. The analyses are performed using data derived from the financial statements of listed firms on the GSE during the most recent eight-year period. Ordinary Least Squares model is used to estimate the regression equation. The results show positive relationships between return on assets, dividend policy, and growth in sales. Thus study supports the second school of thought that dividend policy is relevant to the performance of firms. Surprisingly, the
study reveals that bigger firms on the GSE perform less with respect to return on assets. The results also reveal negative associations between return on assets and dividend payout ratio, and leverage. The results of the study generally support that of previous empirical studies.

The study constructed two additional equations (3 and 4) to check the robustness of the results. It is only the results with Tobin’s q that produce a contra results. Surprisingly, the study reveals that market value of firms has a negative relationship with dividend policy and the firm’s size but positively related to dividend pay out ratio, leverage and growth. Interestingly, the coefficients of all the variables regressed against the Tobin’s q are statistically insignificant.

The analysis has produced some interesting results and one avenue for future research is to extend the investigation to other emerging markets, especially those in the Middle East and North Africa (MENA) region. The incentives for further research on other emerging markets come from the contradictory results and the limitation of the studies which currently exist. Most of the existing studies on Ghana have sample selection problems since they rely on small samples and even the leading studies have often used samples comprising only large companies. Further research that will replicate these studies using more comprehensive and representative samples of firms from Ghana would shed more light on issues raised in this study and other related studies. Also, research needs to be done to test share price reaction around ex-dividend days to make inferences about investor preferences for dividends and capital gains.

Reference
25. LAW.