# Revisiting the Determinants of Dividend Payout Ratios in Ghana

### Eliasu Nuhu

Department of Accounting and Finance
Islamic University College
P.O. Box CT 3221
Cantonments-Accra
Ghana
Email: eliasunuhu@yahoo.com

### **Abstract**

Comprehensive digestion of the subject matter of dividend policy has been somewhat difficult notwithstanding the many studies done on the subject as stated by Black (1976) who wrote that ". . . the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together". The situation is not much different today, where Brealey and Myers (2003) list dividends as one of the ten important unresolved problems in finance. This paper re-examines the factors that determine dividend payout in Ghana. The sample for the study was drawn from 30 listed firms on the Ghana stock exchange from 2000 to 2009. The study used ordinary least squares panel regression model to estimate the determinants of dividend payout. The results show that, profitability, the square of profitability, board size, board independence, leverage, and audit type are important determinants of dividend payout in Ghana. The results of this study are also consistent with the signaling theory, agency theory and the tax-effect hypothesis.

Keywords: Dividends, Determinants, Re-examination, Accounting and finance, Ghana

### 1. Introduction

According to Lease et al., (2000) dividend policy refers to "the practice that management follows in making dividend payout decisions, that is, the size and pattern of cash distributions over time to shareholders". The subject of dividend policy is one that has not only engaged the attention of managers but also, scholars in the academic community since the emergence of modern Commercial Corporation. The first empirical study of dividend policy was provided by Lintner (1956), who surveyed corporate managers to understand how they arrived at the dividend policy. However, it could be argued that Miller and Modigliani's (1961) study laid the theoretical foundation of dividend policy research. This subject has a long history and, as Frankfurter et al (1997) observed, is bound up with the development of the corporate form itself. De Angelo and De Angelo (2006) challenge Black's proposition and state that this "puzzle" is not a puzzle because it is founded in the mistaken idea that Miller and Modigliani's (1961) irrelevance theorem applies to payout/retention decisions. Miller and Modigliani (1961) provided an accepted argument for dividends irrelevance in a world with perfect capital markets since 1961. However, this argument has been challenged at present. If dividends are irrelevant, why do companies still pay dividends? and why are investors aware of dividends?. Previous studies have identified profitability, leverage, ownership structure, firm size, risk, age, firm growth, collateral capacity, board size, board independence, audit type, market-to-book ratio, institutional shareholding and dividend changes as having an effect or influence on dividend payout ratio (see Eriostis and Vasiliou, (2003), Abor and Amidu, (2006), Al-Malkawi, (2007), Kowaleski, Stetsyuk and Talavera, (2007), Al-Shababi and Ramesh, (2011), Bokpin, (2011), Al-Najjar and Hussainey, (2009), Yiadom and Agyei, (2011). In Ghana, not much research has been done in the area apart from the studies by Abor and Amidu (2006), and Yiadom and Agyei (2011) which explored the determinants of dividend payout ratio in Ghana. It is however, interesting to note that none of these studies investigated the effect of board size, board independence and audit type on dividend payout in Ghana, even though the literature suggests a link between these variables. This study also considered a 10-year period (2000 to 2009) which could be argued as being most current and thus, capable of reflecting recent changes in the stock market, unlike the 6-year study period in Abor and Amidu (2006) (i.e 1998 to 2003), and 5-year study period in Yiadom and Agyei (2011) (i.e1999 to 2003).

Further to the above, there has been no such study in Ghana that covers the period in which the global financial crisis occurred. The study therefore, re-examines the determinants of dividend payout in Ghana with regard to listed companies on the Ghana Stock Exchange (GSE). The research is aimed to know whether the determinants of dividend payout ratio in Ghana has changed or not and also, to assess the effect of board size, board independence and audit type on dividend payout ratio in Ghana. This study defines the dividend payout ratio as the percentage of profits paid as dividend. The rest of the paper is organized as follows: section 2 reviews some literature on dividend theories, followed by a discussion of the study variables and the methodology in section 3. Section 4 captures the analysis and discussion of findings, followed by the conclusion in section 5.

# 2. Literature Review

### 2.1 Dividend Theories

The signalling theory asserts that share prices do not react to dividend payout rate in itself but to the information that investors believed changes in dividend levels have for the future prospects of the firm. Bhattacharya (1979) and John and Williams (1985) explain that dividends allay information asymmetric between managers and shareholders by delivering inside information of firms future prospects. Akerlof (1970) defines signalling effect as a unique and specific signaling equilibrium in which a job seeker signals his/her quality to a prospective employer. An increase in dividend payout may be interpreted as the firm having good future profitability (good news), and therefore its share price will react positively. Similarly, dividend cuts may be considered as a signal that the firm has poor future prospects (bad news), and the share price may then react unfavourably.

The bird-in-hand theory explains that because of uncertainty of future cash flow, investors will often tend to prefer dividend to retained earnings. As a result, higher payment ratio will reduce the required rate of returns and hence increase the value of the firm (Gordon, 1963; and Lintner, 1962). In a world of uncertainty and imperfect information, dividends are valued differently to retained earnings (or capital gains). Investors prefer the "bird in the hand" of cash dividends rather than the "two in the bush" of future capital gains. Increasing dividend payments, ceteris paribus, may then be associated with increases in firm value. As a higher current dividend reduces uncertainty about future cash flows, a high payout ratio will reduce the cost of capital, and hence increase share value.

Jensen (1986) explains the theory of free cash flow by asserting that funds remaining after financing all positive net present value projects cause conflicts of interest between managers and shareholders. Dividends and debt interest payment decrease the free cash flow available to managers to invest in marginal net present value projects and manager perquisite consumption. Dividends are used by shareholders as a device to reduce overinvestment by managers. The managers control the firm; therefore, they might invest cash in projects with negative net present values, but which increase the personal utility of the managers in some way. A dividend reduces this free cash flow and thus reduces the scope for overinvestment. The two most cited works in this area are the papers by Easterbrook (1984) and by Jensen (1986).

Allen, Bernardo and Welch (2000) suggest that clienteles such as institutional investors tend to be attracted to invest in dividend-paying stocks because they have relative tax advantages over individual investors. Allen et al. conclude with the proposition that, "...these clientele effects are the very reason for the presence of dividends..."The various components of the clientele effect of dividend hypothesis are; Tax-induced clientele effect, transaction cost clientele effect and the tax-effect hypothesis.

Jensen and Meckling (1976) define the agency relationship as: 'a contract under which one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent'. Jiraporn et al. (2008) argued that the main purpose of corporate governance is to achieve a balance between the investors and the management. Shareholders incur (agency) costs associated with monitoring managers' behaviour, and these agency costs are an implicit cost resulting from the potential conflict of interest among shareholders and corporate managers. The payment of dividends might serve to align the interests of shareholders and managers as well as mitigate the agency problems between managers and shareholders, by reducing the discretionary funds available to managers (Easterbrook, 1984; Jensen, 1986; and Alli, Khan and Ramirez, 1993).

The Pecking Order theory was first initiated by Mayers (1984), and Myers and Majluf (1984). This theory is one of the corporate leverage theories (Murry and Goyal, 2003). It contains two assumptions which are as follows.

First, there is asymmetric information between managers and outside shareholders. The second assumption is that the firm will follow a pecking order to finance its activities (Al-Najjar&Hussainey, 2009). They indicated that the firm will depend first on the retained earnings in financing and distributing the dividends. They added that if the retained earnings are not enough, the firm will use debt, rather than issuing new shares. This theory is examined by the debt level.

## 2.2 Study Variables

# 2.2.1 Profitability

The size of a firm's profit has been a long standing determinant of dividend policy. Directors normally recommend the payment of dividend when the firm has made sufficient profit to warrant such payments. Profitability is among the main characteristics that strongly and directly influences dividend policy, Al-Kuwari (2009). Pruitt and Gitman (1991) conclude that current and past years' profits, the year-to-year and prior years' dividend are important factors that influence dividend policy. Consequently, it is expected that profitable firms are likely to pay dividend as compared to non-profitable firms (Eriostis and Vasiliou, 2003; and Ahmed and Javid, 2009). Abor and Amidu (2006), Yiadom and Agyei (2011), and Naceur et al (2006) find a positive relationship between dividend payout and profitability. Gill et al (2010) posit that there is the possibility of a non-linear relationship between dividends and profitability. Thus, the impact of profitability on dividends changes sign after a certain level of profitability.

## 2.2.2 Investment Opportunity Sets

According to De Angelo *et al.* (2006), investment opportunity set represents a firm's investment or growth options but to Myers (1977) its value depends on the discretional expenditures of managers. Myers (1977) further explains investment opportunity as a yet-to-be realized potentially profitable project that a firm can exploit for economic rents. The higher the growth opportunities, the more the need to finance expansion and hence the higher the chance to retain earnings (Chang and Rhee, 1990). In addition, this negative relationship is in line with Myers and Majluf (1984) and Abor and Amidu (2006) findings. An investment opportunity has been measured in various ways by various writers. These include market to book value of equity (Collins and Kothari, 1989), and book to market value of assets (Smith and Watts, 1992).

### 2.2.3 Taxation

Farrar and Selwyn (1967) show that with the differential in ordinary dividends and capital gains taxes, the policy of paying zero dividends maximizes share value. King (1974) also argues that in such a setting, investment is financed internally and subsequently payout is less. These arguments are corroborated by Masulis and Trueman (1988), who opine that as tax liability increases (decreases), the dividend payment decreases (increases) while earnings reinvestment increases (decreases). Contrary to the theoretical negative relationship between dividends and taxes, Abor and Amidu (2006) find a positive relationship between corporate tax and dividend payout ratio in Ghana, indicating that, increasing tax is associated with increase in dividend payout.

## 2.2.4 Leverage

Firms that finance their activities mostly with debt put pressure on their liquidity. Debt principal and interest payments reduce the ability of firms to have residual income to guarantee dividend payment. Consequently, it is expected that debt would impact negatively on the amount of dividend paid for a period. Kowalski *et al* (2007) argue that more indebted firms prefer to pay lower dividends. Also, Al- Kuwari (2009), Aivazian et al. (2003) and Abor and Bokpin (2010) confirm that dividend payout is negatively related to leverage ratio.

### 2.2.5 Firm Size

Firm size has the potential to influence a firm's dividend policy. Larger firms have an advantage in capital markets in raising external funds, and therefore depend less on internal funds (Higgins, 1972). Furthermore, larger firms have lower likelihood of bankruptcy and, therefore, should be more likely to pay dividends. This implies an inverse relationship between the size of the firm and its dependence on internal financing. This indicates that, large firms are able to distribute higher dividends than the smaller firms. This relationship is also supported by the transaction cost explanation of dividend policy (see Chang and Rhee, 1990; Ho, 2003; and Aivazian et al., 2003). Furthermore, the effect of firm size on dividends is seen as a proxy for agency problems.

#### 2.2.6 Board Size

This represents the total number of the members (executive and non-executive) in the company board (Borokhovich et al., 2005). It is cited by Belden et al (2005) and Bokpin, (2011) that the greater the size of board membership, the higher are the dividends paid to shareholders. They argued that this was because more people monitor the decisions made by the chief executive officer. In Abor and Fiador (2013), the study also found board size to be positive and significantly related to dividend policy.

# 2.2.7 Board Independence

This represents the total number of non-executive directors in the board. As indicated by Belden et al. (2005), it is believed that the outside directors on the company board tend to reduce the agency cost in the firm. They also noted that the outside directors represent the shareholders effectively and ensure their rights in the company. As a result, they concluded that the more outside members there were on the board, the more dividends the company was willing to pay. This is consistent with Kowalewski et al. (2007) who mentioned that shareholders preferred to receive dividends if the insider directors were occupying the board, as they worried about how the management would decide on their earnings. Al-Shababi and Ramesh (2011) found a significant and positive relationship between board independence and dividend policy. That is to say, external board members are considered important in assisting management with advice, expertise and external influences. They also provide beneficial monitoring and advisory services to shareholders.

# 2.2.8 Audit Type

This classifies the type of auditing companies according to whether it is one of the Big Four audit companies or any other audit company. Lang and Lundholm (1996) examined the quality of disclosure by measuring the association between information asymmetry and the number of analyst following disclosure quality. They found that the greater the number of analysts following, the amount of asymmetric information given to the shareholders by the managers was reduced. This was because the investors got enough information from the annual reports analyzed by the analyst following the quality of disclosure. In this study, the quality of the disclosure is measured by the audit type. Mitton (2004) measured the quality of the disclosure by indicating whether the firm is audited by one of the big five international audit companies. He found that a company which is audited by one of the big five audit companies pays more dividends. In this study, big four audit firms are Deloitte Touche Tohmatsu, Ernst & Young; KPMG and PricewaterhouseCoopers, following Hussainey (2009). The audit type is represented by a dummy variable where 1 is when one of the Big Four audit companies carries out the auditing function for the firm and 0 represents any other non-big four audit firms.

# 3. Methodology of the Study

The study focuses on publicly traded companies listed on the Ghana Stock Exchange (GSE). These companies were chosen based on the fact that, getting the data required for the study was much easier as compared to firms that are not listed on the stock exchange. Again, the Ghana stock exchange forms an integral part of the financial development of not only Ghana but in Africa as well and has seen major development over the years Therefore, a study of listed companies on the stock exchange is well deserved. The study uses panel regression model, with a 10-year period from 2000 to 2009 for companies listed on the Ghana stock exchange. In all, 30 companies were used for this study. This number represents 81% of listed companies in Ghana. Data were derived from the annual reports of the selected listed firms and the GSE Fact Books during the ten-year period, 2000-2009. The GSE data consist of statement of financial position, Income Statements, Financial ratios and other relevant information for all publicly quoted companies.

The general form of the panel data model can be specified more compactly as:

$$\mathbf{Y}_{\mathbf{i},t} = \alpha_{\mathbf{i}} + \beta \mathbf{X}_{\mathbf{i},t} + \varepsilon'_{\mathbf{i},t} \tag{1}$$

with the subscript i denoting the cross-sectional dimension and t representing the time-series dimension. In this equation,  $Y_{i,t}$  represents the dependent variable in the model, which is the firm's dividend payout (policy);  $X_{i,t}$  contains the set of explanatory variables in the estimation model; and  $\alpha_i$  is taken to be constant over time t and specific to the individual cross-sectional unit i. If  $\alpha_i$  is taken to be the same across units, then Ordinary Least Square (OLS) provides a consistent and efficient estimate of  $\alpha$  and  $\beta$ .

The model for this study follows the one used by D'Souza (1999) and Abor and Amidu (2006) to explain the relationships between dividend payout and the determinants. This takes the form:

PAYOUT<sub>i,t</sub>=
$$\beta_0 + \beta_1 PROF_{i,t} + \beta_2 PROFSQ_{i,t} + \beta_3 MTBV_{i,t} + \beta_4 TAX_{i,t} + \beta_5 LEV_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 BS_{i,t} + \beta_8 BI + \beta_9 AT + \varepsilon_{i,t}$$
 (2)

Where

PAYOUT<sub>i,t</sub> =Dividend per share/Earnings per share for firm i in period t

PROF<sub>i,t</sub>=Aggregate Earnings/Total Assets for firm i in period t

 $PROFSQ_{i,t}$  The square of profitability for firm i in period t

 $MTBV_{i,t}$  =Market-to -Book Ratio for firm i in period t (i.e price per share/ net assets value per share

 $TAX_{i,t}$ =Corporate Tax/Net Profit Before Tax for firm i in period t

LEV<sub>i,t</sub> = Total Debt/Total Assets for firm i in period t

 $SIZE_{i,t}$ =The Logarithm of Total Assets for firm i at end of period t

 $BS_{i,t}$  = log of total directors for firm i

BI<sub>i,t</sub> = Total non-executive directors/ Total directors for firm i in period t AT<sub>i,t</sub> = 1 if audited by one of the big four and 0 otherwise for firm i in period t

 $\mathbf{\epsilon}_{i,t}$  =The error term

In view of the above theoretical and empirical discussions, the following hypothesized relationships are predicted for each variable with respect to the dividend payout ratio:

**PROF, SIZE, BI, BS** and **AT** are expected to be positively related to **PAYOUT**; **POFSQ, TAX, MTBV**, and **LEV** should be negatively related to **PAYOUT**.

# 4. Analysis and Discussion of Findings

## 4.1 Summary statistics

Table 1 below presents the descriptive statistics for the determinants of dividend payout in Ghana for the period2000-2009. The table shows the mean, median, minimum, maximum and standard deviation values for each of the variables. From the table, the average (median) dividend payout ratio (measured as dividend per share/earnings per share) is 60.7 percent (31.9 percent) and the average (median) profitability is 35.62 percent (34.22 percent). This means, on the average, firms pay about 60.7 percent of their earnings after tax as dividends and the average return on assets stands at 36 percent. Average (median) market-to-book value for the firms is 13485.2 (3.7717). Corporate tax rate on average is 34.2 percent (32.6 percent). The mean (median) debt ratio under the period of study is 39.99 percent (23.40 percent). Firm size, determined as the natural logarithm of total assets of firms has a mean (median) of 6.4320 (6.3505). The average (median) board size under the period of study is 6 (4). The maximum for board size is 19 and the minimum is 3 which indicate that the sample used in this research contained small as well as large companies. Average (median) board independence for the firms is 42.10 percent (50.00 percent). Audit type has a mean (median) of 73.66 percent (70.00 percent). This means that 22 sample companies were audited by big four audit firms and just 8 companies were audited by non-big four audit firms hence the mean is close to 1.

| Table 1: Descriptive Summary Statistics (2000-2009) |          |          |           |          |          |  |  |
|---|----------|----------|-----------|----------|----------|--|--|
| Variables   | Mean     | Std. Dev | Minimum   | Median   | Maximum  |  |  |
| PAYOUT  | 0.607447 | 20.28174 | -10.85573 | 0.319256 | 350.7465 |  |  |
| PROF  | 0.356248 | 0.317411 | -0.186679 | 0.342239 | 1.000000 |  |  |
| PROFSQ  | 0.227328 | 0.277070 | 7.74E-11  | 0.117128 | 1.000000 |  |  |
| MTBV  | 13485.28 | 52570.54 | -7.795889 | 3.771780 | 643667.0 |  |  |
| TAX   | 0.346489 | 454.3530 | -0.005556 | 0.325827 | 6443.000 |  |  |
| LEV   | 0.399983 | 2.885040 | 0.000000  | 0.234000 | 23.34400 |  |  |
| SIZE  | 6.432074 | 1.478842 | 3.090963  | 6.350573 | 10.65120 |  |  |
| BS  | 6.076609 | 5.114092 | 3.000334  | 0.445098 | 19.65500 |  |  |
| BI  | 0.421067 | 0.193678 | 0.100000  | 0.500000 | 0.980000 |  |  |
| АТ  | 0.736667 | 0.441178 | 0.000000  | 0.700000 | 1 000000 |  |  |

Table 1: Descriptive Summary Statistics (2000-2009)

**Note**: Prof represents Profitability, Profsq is the square of Profitability, Mtbv is the market-to-book ratio, tax is corporate tax, Lev is debt ratio or leverage ,Size is firm size ,BS is board size, BI is board independence and AT represents audit type.

### 4.2 Correlation and Multicollinearity Analysis

In order to determine whether the coefficient estimates may change erratically in response to small changes in the model or the data, the correlation coefficients of the explanatory variables have been shown below in table 2. The results in table 2 show that the presence of multicollinearity among the independent variables is minimal.

**PROFSQ** MTBV TAX LEV **BID** ATVARIABLES **PAYOUT PROF** SIZE BS **PAYOUT** 1.00 **PROF** 0.13 1.00 **PROFSQ** 0.18 0.52 1.00 1.00 **MTBV** -0.02-0.29-0.21TAX -0.04-0.38 -0.270.30 1.00 **LEV** -0.360.31 0.57 -0.07-0.481.00 **SIZE** 0.00 -0.05 -0.06-0.070.06 -0.031.00 BS 0.61 0.20 0.24 -0.05 -0.07 -0.13 0.00 1.00 0.60 0.49 **BID** 0.21 -0.41-0.60 -0.65 -0.040.30 1.00 0.05 0.48 0.34 -0.38 -0.59 0.69  $\mathbf{AT}$ -0.57-0.090.10

**Table 2: Correlation Matrix of the Explanatory Variables (2000-2009)** 

**Note**: Prof represents Profitability, Profsq is the square of Profitability, Mtbv is the market-to-book ratio, tax is corporate tax, Lev is debt ratio or leverage, Size is firm size, BS is board size, , BI is board independence and AT represents audit type.

## **4.3 Regression Results**

The regression is run in a panel manner. Various options of panel data regression were run, fixed effects, random effects and OLS panel. The most robust of all was the OLS panel, thus, the study report results of the OLS panel regression in Table 3.

| Variable                | Coefficient | Std. Error | t-Statistic | Prob.     |
|-------------------------|-------------|------------|-------------|-----------|
| PROF                    | 8.355452    | 2.568359   | 3.253226    | 0.0013*** |
| PROFSQ                  | -10.10038   | 2.725865   | -3.705386   | 0.0003*** |
| MTBV                    | -3.46E-06   | 4.33E-06   | -0.798659   | 0.4251    |
| TAX                     | -0.000680   | 0.000583   | -1.166432   | 0.2444    |
| LEV                     | -0.282218   | 0.121579   | -2.321264   | 0.0210**  |
| SIZE                    | -0.017537   | 0.140124   | -0.125153   | 0.9005    |
| BS                      | 4.120461    | 0.045044   | 91.47708    | 0.0000*** |
| BI                      | -23.51471   | 2.624890   | -8.958361   | 0.0000*** |
| AT                      | 3.487644    | 0.899396   | 3.877764    | 0.0001*** |
| Constant                | 4.771492    | 1.454246   | 3.281076    | 0.0012*** |
| $\mathbb{R}^2$          | 0.970874    |            |             |           |
| Adjusted R <sup>2</sup> | 0.969971    |            |             |           |
| S.E. of regression      | 3.514624    |            |             |           |
| F-statistic             | 1074.100    |            |             |           |
| Prob(F-statistic)       | 0.000000    |            |             |           |

**Table 3: Determinants of Dividend Payout (2000-2009)** 

**Note:** The significance levels (two-tail test) are: \*10 per cent, \*\*5 per cent and \*\*\*1 per cent. Prof represents Profitability, Profsq is the square of Profitability, Mtbv is the market-to-book ratio, tax is corporate tax, Lev is debt ratio or leverage ,Size is firm size ,BS is board size, ,BI is board independence and AT represents audit type. R<sup>2</sup> represents R-squared.

The results in table 3 above show that, consistent with the a priori expectation, a statistically significant and positive relationship exist between profitability, measured as Aggregate Earnings /Total Assets (ROA) and the dividend payout ratio. This is explained by the fact that, highly profitable firms tend to declare and pay high dividend as compared to firms that are not profitable. Also, the level of dividend paid by firms is largely influenced by their level of profitability. Thus, they would have exhibited high payout ratios. A firm's profitability is considered an important factor in influencing dividend payment.

The results also appear to be consistent with the findings of other empirical studies (see Pruitt and Gitman, 1991; Al-Kuwari 2009; Eriostis and Vasiliou, 2003; Ahmed and Javid, 2009; and Abor and Amidu, 2006). This result is also supported by the signalling theory of dividend policy which suggests that, firms pay dividends to signal their worth and as such, profitable firms declare dividends to send this information to the market. In addition, firms that are not profitable cannot afford to pay dividend in an attempt to imitate the actions of profitable firms since they cannot sustain dividend payment in the future. In this regard therefore, they will be compelled to cut dividend and this could signal a negative response from investors. The results also reveal that square of profitability is significantly and negatively related to dividend payout. This results also show the existence of a non-linear relationship between profitability and dividend payout. Thus, the impact of profitability on dividends changes sign after a certain level of profitability. This means, there is point after which higher profitability no longer translate into higher dividend payments. This is also consistent with the expected relationship and corroborates the findings of Gill et al (2010). Market-to-book value used as a proxy for the firms future investment opportunity, measured as Price per Share/Net Assets Value per Share show a negative but insignificant relationship with dividend payout. Tax, measured as corporate tax/profit before taxation is also shown to exhibit a negative but insignificant association with dividend payout. Consistent with the a priori expectation, the results show a statistically negative and significant association between leverage, measured as total debt/total assets and dividend payout.

This is indicative of the fact that more indebted firms prefer to pay lower dividends compared to less indebted firms. This is because leverage affects a firm's capacity to pay dividends. Firms that finance their business activities through borrowing commit themselves to fixed financial charges that include interest and principal payments. Failure to make these payments in the designated time may subject the firm to risk of liquidation and bankruptcy and thus, higher leverage will likely result in lower dividend payments. Again, some debt covenants have restrictions on dividend distribution and in that regard greatly influence how much dividend is paid out at one point in time. This results confirms the findings of previous empirical studies (see Kowalskiet al, 2007; Al-Kuwari, 2009; Agrawal and Narayanan, 1994; Gugler 2003; Abor and Bokpin, 2010; and Aivazian et al. 2003). The results also mean that firms with high-debt ratio and implied financial risk may be restricted from paying more dividends. Size of the firm, measured as log of total assets however, exhibited a negative but insignificant relationship with dividend payout. As expected, the results indicate a statistically positive and significant relationship between board size measured as the log of total directors in the board and dividend payout. This result suggests that, the greater the size of board membership, the higher is the dividends paid to shareholders. Since corporate boards are responsible for monitoring the opportunistic behaviour of management and ensuring that shareholders' interests are promoted, then more membership on the board to monitor the decisions made by the chief executive officer in the applications of discretionary funds available to firms will result in higher dividend payout to shareholders.

The result is also consistent with previous empirical studies (see Belden et al., 2005; Bokpin, 2011; and Abor and Fiador, 2013). Contrary to the a priori expectation, board independence, measured as total non-executive directors/total directors is shown to have a negative and significant relationship with dividend payout. This means, the less outside members on the board or non-executive directors the more firms are willing to pay dividend. It could be that, large number of outside directors turn to impress on firms to pay less dividends in order to invest in opportunities that are most likely to yield better returns to shareholders in the future. Bhagat and Black (2002) posit that, this relationship occurs where the activities of too many non-executive directors increase the agency problem. This means that, the inclusion of a lot of incapable non-executive directors who fail to bring expertise to the board are seen as merely symbolic members and cannot protect the interest of shareholders. This view is also supported by Agrawal and Knoeber (1996). This result however, corroborates the findings of Al-Najjar and Hussainey (2009) which also established a negative relationship between board independence and dividend payout. The results also show, a statistically significantly and positive association between dividend payout and audit type, measured as a dummy, in which, 1 is recorded for a firm that is audited by big four auditing firm and 0 otherwise. This is consistent with the expectation of the study. This means, companies that are audited by one of the big four audit companies are more likely to pays higher dividends compared to other companies not audited by one of the big four audit firms. This is because shareholders of companies that are audited by the big four audit firms expect higher dividends, since, information asymmetric is reduced as a result of greater analyst monitoring disclosure quality.

On the other hand, shareholders of companies that are audited by other firms suffer from information asymmetric and are unable to expect high dividends as a result of lack of proper information about the performance of the firm. These shareholders tend to expect lower dividends.

### 5. Conclusions

From the results of the study, we observed that dividend payout ratio in Ghana is positively related to profitability, board size, and audit type, while showing negative association with the square of profitability, leverage and board independence.

The study suggests the conduct of future research to examine the impact of chief executive officer tenure on dividend payout ratio in Ghana.

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