THE RELATIONSHIP BETWEEN POLICY DIVIDENDS AND FIRMS' PERFORMANCE ON GHANA STOCK EXCHANGE

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ABSTRACT

This study was to examine the impact of relationship between dividends policy and financial performance of listed banking and non-banking industries in Ghana. The research used secondary data obtained from the audited financial statements. To achieve this objective, data from 10 listed banks and non-banks were analysed for the period of seven years (2012-2018). E-views version 9 was used to estimate the regression results. The study revealed that dividend payout had no effect on the financial performance of listed banks and non-banking firms in Ghana. Thus amount of dividends paid does not affect the financial performance of firms but should pay dividends when they are financially strong. Also, findings of the study confirmed that dividend policy is a major factor that influence the financial performance of listed banks and non-banking firms. It was observed that dividend policy was highly significant predictor in explaining the firms' performance (ROE). Other factors such as firm size, leverage and growth had insignificant impact on the return of equity of listed firms (banks and non-banking). Hence firms should ensure that they have good and effective strategies that will lead to increased total asset and other factors that will result to improved financial performance of banks and non-banking firms in the future. It is therefore, recommended that Banks and non-banking firms should invest in profitable assets that will yield higher returns in the future to enhance their financial performance and attract investments in the future. Moreover, the research findings revealed that there was no weighty impact of dividend payout on the financial performance and hence, investors should not rely on the amount of dividends paid to ascertain the financial stability of the firms.

Keyword: *Dividend payout, performance, Return on Equity, Ghana Stock Exchange*

INTRODUCTION

Background to the Study

The issue of dividend policy is one of the very essential elements in economics and business that cannot be overlooked. Dividend policy is the regulations and guidelines that a company rely upon in making decisions concerning dividend payments to shareholders (Nissim & Ziv, 2001). The dividend policy decisions of firms are the primary element of corporate policy. Dividend, which is basically the benefit of shareholders in return for their risk and investment, is determined by different factors in an organization. Basically, these factors include financing limitations, investment chances and choices, firm size, pressure from shareholders and regulatory regimes. However, the dividend payout of firms is not only the source of cash flow to the shareholders but it also offers information relating to firm's current and future performance. Therefore, enhancing shareholders' wealth and profit making are the major objectives of a firm (Pandey, 2005). Shareholder's wealth is mainly influenced by growth in sales, improvement in profit margin, capital investment decisions and capital structure decisions (Azhagaiah & Priya, 2008). Firm performance in this case can be viewed as how well a firm enhances its shareholders' wealth and the capability of a firm to generate earnings from the capital invested by shareholders. Dividend policy can affect the value of the firm and in turn, the wealth of shareholders (Baker & Powell, 2001).

Dividend or profit allocation decision is one of the four decision areas in finance. Dividend decisions are important because they determine what funds flow to investors and what funds are retained by the firm for investment (Ross, Westerfield & Jaffe, 2002). More so, they provide information to stakeholders concerning the company's performance. Firm investments determine future earnings and future potential dividends, and influence the cost of capital (Foong, Zakaria & Tan, 2007). Dividend policy is therefore, considered to be one of the most important financial decisions that corporate managers encounter (Baker & Powell, 1999). It has potential implications for share prices and hence returns to investors, the financing of internal growth and the equity base through retentions together with its gearing and leverage (Omran & Pointon, 2004). There has been

emerging consensus that there is no single explanation of dividends. According to Brook and Hendershott (1998), there many determinants of corporate divided policy.

Frankfurtet and McGoun (2000) posited 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. Mizuno (2007) agrees to the fact that a firm ought to pay dividends to shareholders if it cannot identify suitable investments which would bring higher returns than those expected by the shareholders. Dividend distribution to shareholders varies in cash or by issue of additional shares. Whether to pay cash dividend or issue further shares will depend on the level of the company's unappropriated profit or excess cash. Payment of dividend is usually met by the company from its earnings and cash flow (Ahmed & Javid, 2009).

The proportion of dividend paid out of total earnings is technically referred to as payout ratio. A high payout ratio shows management's confidence in the stability and growth of future earnings while a low payout ratio suggests that management is not confident of the stability of earnings or sustainability of earnings growth (Arnott & Asness, 2003). The larger the proportion of dividend paid, the fewer funds are retained for investments and the more the company will have to shift to alternative sources of funds such as issue of additional shares and or debt capital to finance selected viable projects (Sindhu, 2014). Therefore, the decision between paying dividend and retaining earnings is taken seriously by both investors and management and has been the subject of considerable research by economists for some years back (John & Muthusamy, 2013).

Many studies have shown disparities in view of whether dividend payout materially affects the long term share prices. Dhanani (2005) who used a survey approach to capture managerial views and attitudes of corporate managers regarding dividend policy found that dividend policy serves to enhance corporate market value. Therefore, dividends have no explanatory power to predict future earnings. While some previous empirical studies show that dividend policy is irrelevant to firm value (Miller & Modigliani, 1961), others have proven otherwise (Gordon, 1963; Bhattacharya, 1979; and Allen & Michaely, 2002). This study seeks to provide further evidence on the impact of dividend policy on the performance of banks and non-banks in a developing economy-Ghana. The study seeks to add to existing research in dividend policy and firm performance in a developing country.This research therefore seeks to establish whether a relationship exists between dividend payout and firm performance.

In Ghana, studies on dividend policy have been limited to the determinants of dividend pay-out ratios of listed firms (Amidu & Abor, 2006), how does dividend policy affect performance of the firm on Ghana Stock Exchange? (Amidu, 2007), dividend policy and share price volatility (Asamoah, 2010), dividend policy and bank performance (Marfo-Yiadom & Agyei, 2011), and dividend policy and firms' performance of listed banks in Ghana (Oppong, 2015). Amidu (2007) carried out a study about how the dividend policy affect firm performance and results revealed a positive relationship between return on asset and dividend policy. Nonetheless, none of these researchers studied on both banking and non-banking. Marfo (2010), researched on the impact of dividend policy and firms' performance of commercial banks. This study again seeks to fill the gap by expanding the horizon to incorporate both banking and non-banking institutions listed on the Ghana Stock Exchange.

Statement of the Problem

Dividend pay-out decision is considered as the most important financial decision that finance managers encounter (Baker, 2000). Dividend is payment to shareholders for their investment in a firm and it's distributed from profit earned by the company at the end of the financial period (Kajola, Desu & Agbanike, 2015). Kajola et al., (2015) proved that there is a positive association between dividend pay-out and firm performance and thus corporations should invest in a dividend policy that would attract profitable investments.

There are several studies about dividend policy that have been carried out on dividend policy and financial performance of banks in Ghana and globally. Ahmed and Fatima (2013) undertook a research about determinants of dividend policy focusing on sectorial analysis from Pakistan and concluded that profitability and size are major determinants of dividend policy. Amidu (2007) carried out a study about how the dividend policy affect firm performance and results revealed a positive relationship between return on asset and dividend policy. Velnampy et al (2014) researched about dividend policy and firm performance with a focus on corporations in manufacturing industry listed on Colombo stock exchange and they found out that there is no association between determining factors of dividend policy and firm performance, thus according to Velnampy et al (2014) dividend policy does not affect firm performance.

In Ghana, studies on dividend policy have been limited to the determinants of dividend pay-out ratios of listed firms (Amidu & Abor, 2006), how does dividend policy affect performance of the firm on Ghana Stock Exchange? (Amidu, 2007) and dividend policy and share price volatility (Asamoah, 2010), dividend policy and bank performance (Marfo-Yiadom & Agyei, 2011), and dividend policy and firms' performance of listed banks in Ghana (Oppong, 2015). Nonetheless, none of these researchers devoted his study to both banks and non-banks (thus, financial versus non-financial institutions) listed on the GSE. This study sought to fill the gap by

expanding the period to the most recent ten year period as this can influence the results of earlier studies conducted and contribute to existing literature.

Research Objectives

The main objective of the study is to examine the relationship between policy dividends and firms' performance in Ghana. To wholly address the overall goal of the study, the following specific objectives have been coined to:

1. Establish the relationship between dividend policy and firm performance (ROE) for listed companies on GSE.
2. Examine the effect of size, leverage and growth on financial performance (ROE) of listed companies on GSE.

Research Hypotheses

H_1: There is no significant relationship between dividend policy and return on equity.

H_2: There is no significant effect of size, leverage and growth on the return on equity of firms.

Delimitation of the Study

The purpose of the study was to examine the relationship between dividend policy and firms' performance in Ghana. Therefore, dividend policies and firms' performance or profitability was the focus of this study. The study was limited to only 10 firms (from the banking and non-banking sectors) listed on the Ghana Stock Exchange. Moreover, only listed firms with up to date financial reports on Ghana Stock Exchange websites were considered in the study.

Limitations of the Study

Firstly, the research mainly concentrated on the secondary data acquired from the annual reports of listed banks and non- banking firms which may not reliable as the data is prone to errors and may be biased. The study also does not consider the effect of the environment (both financial and political conditions) that could affect financial performance of the selected firms.

Secondly, the population of ten (10) firms, consisting of five (5) banks and five (5) non-banks are too small to generalize the results since there are many banks and non-banks operating in Ghana. The study was also limited to seven (7) years, hence the period is too short to observe changes in the variables.

Significant of the Study

Shareholders as owners of the business could be the primary beneficiaries of the findings from this research, as anything affecting the value of their investments is of great importance to them. The outcome of this study would influence the choice of the shareholder on whether to accept dividend or capital gain as a way of increasing wealth or creating value. To financial managers, it could assist them in developing a dividend policy that will determine the proportion of profits to retain in business and the proportion to distribute as dividends to shareholders in order to enhance the wealth of shareholders. Moreover, this study would add up to existing literature on the topic. The study would serves as a pool of information or reference point to policy makers, researchers, and other stakeholders in attempt to study or formulate policies and regulations to improve the operations of firms and industries in Ghana.

LITERATURE REVIEW

Introduction

This chapter focuses on previous studies done by various researchers in relation to dividend policy and firms' performance. The section discusses the key theoretical considerations from previous studies such as the agency theory, signaling, bird in hand, divided irrelevant theory which inform the general and specific objectives developed for this study, that is, dividend policy and firm performance; extend of their relationship; differences among the various firms and their performance with regards to dividend policy. Also, concepts such as dividend policy, performance as well as empirical review on the relationship between dividend policy and firms' performance was considered.

Theoretical Framework

A number of dividend theories have been researched and discussed by academicians such as Pandey (2003). Some of the theories regard dividends as significant and others are of the opinion that dividends are immaterial in making financial decisions (Luvembe, Njangiru & Mungami, 2014). The dividend irrelevance perspective argues that dividends are irrelevant while dividend relevance perspective posits that dividends affect firm performance. This section looks at the theories that underpinned the study. Such theories include: dividend irrelevant theory, bird in hand theory, signalling theory, tax preference theory and clientele effect**.**

Dividend Irrelevance Theory

Modigliani and Miller (1961) developed the dividend irrelevance theory. When return on investment is considered the investor sees dividends and capital gain as the same. While the valuation of a company is mainly affected by it revenues as a result of investment policy and future forecasts of the corporation. Once the investor knows the investment policy, he will not require extra information on the dividend payment history of the company. Therefore the investment decision depends on the investment strategy of the company and not on the dividend policy.

Modigliani and Miller (1961) further explained the situations where dividends are irrelevant to investors since any shareholder can design his/her own dividend policy. When corporations do not pay dividends, a shareholder who requires dividend can construct it by vending a proportion of her/his shares and an investor can use the surplus dividend in acquisition of extra shares when a corporation pays dividend above what an investor needs. Therefore, investors can acquire and dispose off shares thus forming their own dividend policy at no cost, and therefore company dividend policy will be immaterial to financial performance. Miller and Modigliani (1961) indicated that dividend policy is immaterial, they disclosed that as long as the corporation is getting profits anticipated by the market, it does not matter how the firm divides its earning between dividend payment and its retained earnings. This further implies that dividend policy will not impact the financial performance of companies, thus dividend policy is irrelevant.

Bird in hand theory

Bird in hand theory proposes that a relationship exists between firm value and dividend pay-out. It states that dividends are less risky than capital gains since they are more certain. Investors would therefore prefer dividends to capital gains (Amidu, 2007). Because dividends are supposedly less risky than capital gains, firms should set a high dividend pay-out ratio and offer a high dividend yield to maximize stock price. The essence of the bird-in-the-hand theory of dividend policy (Gordon, 1963) argues that outside shareholders prefer a higher dividend policy. Investors think dividends are less risky than potential future capital gains, hence they prefer dividends to capital gains. If so, investors would value high pay-out firms more highly.

The Bird in Hand theory of Gordon (1963) 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 behaviours (Miller & Modigliani, 1961; Bhattacharya, 1979). This is so because, in the irrelevant theory, there is perfect information about firm's profitability.

Signalling Theory

The signalling theory proposes that dividend policy can be used as a device to communicate information about a firm‘s future prospects to investors. Cash dividend announcements convey valuable information, which shareholders do not have, about management's assessment of a firm's future profitability thus reducing information irregularity. Investors may therefore use this information in assessing a firm‘s share price. The intuition underlying this argument is based on the information irregularity between managers and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders (investors). Dividend policy under this model is therefore relevant (Al-Kuwari, 2009). According to the information content of dividends or signalling theory, firms, despite the distortion of investment decisions to capital gains, may still pay dividends to signal their future prospects in order to attract more investors (Amidu, 2007).

According to the information content of dividends or signalling theory, firms, despite the distortion of investment decisions to capital gains, may pay dividends to signal their future prospects. 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 signalling 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 signalling 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.

Tax Preference Theory

Tax preference theory was first advanced by Litzenberger and Ramaswamy (1979). The theory suggests that investors have a preference of capital gains to dividends since capital gain taxes can be postponed into the future however taxes on dividend must be paid as dividends are received. Taxes are not paid on capital gain until the

shares are sold and because of time value of money, the amount of taxes paid in the future has a minor actual cost than amount paid now. Therefore, because of tax benefit, investors' desire companies to maintain large proportion of its income; hence investors are more ready to pay extra for low pay out corporations than for high pay out corporations. This theory criticizes the MM assumption that tax is irrelevant. The tax benefit of capital gain to dividends tends to influence investors who have capital gain preference to invest in firms that retain high proportion of their earnings than the ones that pay dividends (Njoroge, 2014).

Clientele Effect

This is the tendency of a firm to entice a certain group of investors who like its dividend policy. A dividend clientele is defined as a group of investors who are appealed to stocks of the company that have their desired dividend policy, distinct sets of stockholders desires dissimilar dividend policies; this may be due to the tax treatment of dividends and because some investors are seeking cash income such as retiree, the poor and the old prefer cash income hence invest in firms that pay high proportion of earnings as dividends (Norton, 2008).

Other clients prefer growth, for example, investors in their highest earning period prefer reinvestment because they do not require much of their income, and therefore they reinvest their dividends after paying income taxes on those dividends. Investors in need of current investment income should own stock in companies paying high dividends and vice versa. Change in the dividend policy may compel some stockholders to vend their shares (Gitman & Hennessey, 2004).

Relationship between Dividend Policy and Profitability

Although dividend policy and its impact on financial performance of a company is one of the most debated issues in financing literature, yet there is no universal consensus (Bremberger, Cambini, Gugler & Rondi, 2016). Considerable studies attempted to uncover problems of the dividend dynamics to explore the main determinants of dividend policy; however, there is no universally acceptable justification for the dividend policy behaviour of organizations. There are several decades of literature on the topic yet the puzzle remains to be resolved (Cambini, Gugler & Rondi, 2014).

The Firm Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business to generate revenues and expand its operations (Copisarow, 2000). Financial performance can be measured in many different ways, but all these ways should be aggregated. According to Demsetz and Lehn (1985), financial ratios from financial statements are a good source of data to measure financial performance.

Financial performance also is to measure in terms of net earnings which are divided into two parts, retained earnings and dividend. The retained earnings of the business may be reinvested and treated as a source of long-term funds. The dividends distributed to the shareholders in order to maximize their wealth as they have invested their money in the expectation (Nairobi Securities).

Profitability is a type of performance measure which focuses on the relationship between revenues and expenses and on the level of profits with relative to the size of investment in the business (Zhou & Ruland, 2006). Four most commonly noted measures of firm profitability are: the rate of return on firm's total assets (ROA), the rate of return on firm's equity (ROE), operating profit margin and net firm income.

Return on equity (ROE) is a measure of profitability that calculates how many cedis of profit a company generates with each cedi of shareholders' equity. The formula for ROE is: ROE =Net Profit/Shareholders' Equity. ROE is sometimes called "return on net worth.

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a company's annual earnings by its total assets, ROA is displayed as a percentage. ROA = Net profit / Total Assets.

Empirical Review

This elaborates on the outcome of other studies conducted in Ghana and around the globe that are related to dividend policy and firm performance. Sunday, Ademola, and Oyefemi (2015) are examining the relationship between dividend policy and financial performance of non-financial firms in Nigeria. They selected 25 listed non-financial firms in Nigeria and used secondary data from the audited financial statements reports. Panel data methodology was employed and pooled Ordinary Least Squares (OLS) was used to estimate the coefficients of explanatory and control variables where the return on assets (ROA) served as the dependent variable, profitability, while dividend payout ratio proxies 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).

Wolmarans (2003) carried a study based on the Lintner model, whereby he investigated whether the Lintner model can be used to explain the dividend payment in South Africa by selected 97 firms across different sectors

that listed on the Johannesburg Securities Exchange. He compared the Lintner model with another less complicated model, the percentage model. The percentage model refers to cases in which a company chooses to pay a constant (average) percentage of earnings per share as dividends. He also found that the percentage model provided a better explanation of dividends payment as opposed to Lintner's model. Of the 97 companies used in the study, 53% were in line with the percentage model, while 47% of the companies in line with Lintner's model. He also noted that the size of the company by market capitalization does not affect the degree of fit for Lintner's model. He further reported that South African companies appear to aim to pay out on average 35% of their earnings over the long term.

Amidu (2007) also carried out a study whereby he tested the effect of dividend policy on firm performance in Ghana. He used a sample of 25 companies listed on the Ghana Securities Exchange for a period of eight years (1997-2004). He used the ordinary least squares model to estimate the regression equation. He used ROA (Return on Assets) and ROE (Return on Equity) as the dependent variables and dividend policy, and payout ratio as the independent variables; he further controlled for firm size. His results show a positive and significant relationship between return on assets and dividend policy. He reported that this result indicates that when a firm has a policy to pay dividend it influence its profitability.

Barman (2008) did a survey designed to achieve an independent analysis of the dividend function used by companies in South Africa. The study consisted of a sample of 42 companies both listed and private in South Africa which paid a cash dividend during the previous financial year (2007). Questionnaires were sent out to the Chief Financial Officer (CFO's) of both listed and private firms to get managers' view on dividend payments and the effect it has on firm value. Barman study was based on questionnaires that aimed to get managers view on dividend policy and its impact on firm value in South Africa. However the samples of 42 listed and private companies that selected relatively small. Therefore, the results of the study are only indicative and not conclusive. According to his findings, managements are of the view that optimal policy strike a balance between dividend payment and the growth of a firm, about half of managers interviewed are neutral when asked if they think dividends policy has an impact on firm value. It appears that management do view dividend policy as being important, however majority of the managers do not think dividend policy have an effect on the intrinsic value of shares.

Azhagaiah and Priya (2008) did a study which aimed at analyzing the impact of dividend policy on shareholders' wealth in organic and chemical Companies in India. In order to measure the impact of dividend policy on shareholders' wealth, they used multiple regression models and stepwise regression models. They used Market Price per Share as the dependent variable and Dividend per Share, Retained Earnings per Share, Lagged Price Earning Ration and Lagged Market Price as the independent variable. In comparing dividend and non-dividend paying firms they found that in the long-run, the wealth of shareholders in dividend paying chemical companies had increased significantly. This indicated the impact of dividend policy on wealth creation. The regression analysis indicates that dividend payments by organic and chemical companies have a positive and significant impact on their shareholders' wealth. The authors indicated that shareholders prefer current dividend to future income, as dividends are considered as an important factor which determines shareholders' wealth. Furthermore, it was noted that higher dividends increase the market value of the share

Agyei and Marfo-Yiadom (2011) studied the relationship between dividend policy and performance of 16 commercial banks in Ghana for a period of 10 years (1993-2003). Result shows a positive relationship between dividend policy and performance. It further reveals that leverage, size of a bank and growth, enhance the performance of banks.

Adu-Boanyah, Ayentimi and Osei-Yaw (2013) also sought to identify the determinants of dividend payout policy of some selected firms on the Ghana Stock Exchange from 1997 to 2006 financial years. The study by Adu-Boanyah *et al.,* (2013) consisted of samples from manufacturing as well as non-manufacturing listed firms in Ghana. This is evident in the fact that the authors based their study on ten (10) sampled firms purported to be manufacturing in nature, contrary to the classification by the Ghana Stock Exchange. Not surprisingly, their finding that profit realization is directly related to dividend payments is generally consistent with that of Amidu and Abor, (2006) who also undertook a study on the determinants of dividend payout ratios in Ghana from 1998 to 2003.

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 payout of firms.

Merekefu and Ouma (2012) did a study in Kenya on the relationship between dividend payout and firm performance. The study was based on 41 companies listed on the Nairobi Securities Exchange from 2002-2010. They did a regression analysis to determine the relationship between dividend payout and firm performance. Net profit margin was the dependent variable, while dividends paid; total assets and revenue were the independent variables. The results indicated that about 80.7% of net profit after tax was influenced by dividends paid, total assets and revenue. They found a positive strong relationship between Net profit after tax and dividends.

Dividends were thus a significant factor that affected firm performance (Merekefu & Ouma 2012). According to the results, they concluded that dividend policy is relevant and affects the firm performance and hence its value. The relationship between the variables is positive and significant.

Gul (2012) did a study in Pakistan testing the relationship between dividend policy and shareholders' wealth. The study was based on a sample of 72 companies listed on the Karachi Stock Exchange from 2005-2010. The authors used multiple regression and stepwise regression method to study the impact of dividend policy on shareholders' wealth. Market value of equity is the depended variable and was used as a proxy for measuring shareholders' wealth. The independent variables include dividend per share, retained earnings, lagged price to earnings ratio and lagged market value of equity. Dividend per share was used as a proxy for measuring the dividend policy of a firm.

Gul (2012) found that the market value of companies that pay dividends is well above the book value as compared to companies that do not pay dividends. They reported that there is a significant difference between shareholders' wealth in companies that pay dividends than those that do not pay dividends. Their findings also indicate that the wealth of dividend payers increased significantly as compared to non- payers, which shows the impact of dividend policy on shareholders' wealth. The regression analysis on the 4 models are significant at a 1% level and the results indicate that dividend per share has a significant positive influence on the dependent variable in all models except model 3. These suggest that the higher the companies pay dividend per share the higher shareholders wealth will be.

Timothy and Peter (2012) sought to establish the relationship between dividend payout and firm performance among listed firms on the Nairobi Securities Exchange during the period of 2002-2010. They employed regression analysis to establish the relationship between dividend payout and firm performance. Their findings indicated that dividend payout was a major factor affecting firm profitability measured by net profit after tax. Their relationship was also strong and positive. This therefore showed that dividend policy was relevant.

Salehnezhad (2013) investigates corporate governance and dividend policy in firms 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. Wasike and Ambrose (2015) undertook a research to find out determinants of dividend policy in Kenya. Data were sourced from the firms' annual reports. The census study used panel regressions techniques to analyse the data of all listed 60 (sixty) companies at Nairobi Securities Exchange (NSE) for the period 2004-2014. The research results showed that there are affirmative associations between dividend policy and profitability, cash flow, and tax, and that there are adverse associations between dividend policy and risk, institutional holding, growth and market-to-book value. This study supports the signalling theory of dividend policy.

Dwita and Simiati (2013) study the effect of managerial ownership, financial leverage, profitability, firm size and investment opportunity on dividend policy and effect of al that variables on firm value on manufacturing firms that go-public and listed in Indonesia Stock Exchange during 2006-2011. During 2006-2009, the manufacturing sector growth is declining which will hinder goal to increase firm value. There were 15 firms committed to distribute dividends for 5 consecutive years during 2007-2011 and most of 15 firms decided large percentage of retained earnings. This also shows management decisions making influenced by distribution and growth of firm profitable investment opportunities. The sample was decided by census method. They had tested that most of the firms tend to pay dividend to the investors that believe will increase the firm share price as shareholder believe only a firm with good profit is able to payout dividend. Therefore dividend policy is expecting to giving a good and positive signal to investor that firm is well perform that increase the firm value. (Baker & Powell, 1999; Suranta & Machfoedz, 2003; Dasilas, Lyroudi & Ginoglou, 2009; Mai, 2010).

Ajanthan (2013) did a study in Sri Lanka on the relationship between dividend payout and profitability among listed hotels and restaurant companies on the Colombo Stock Exchange. Ajanthan did a regression and correlation analysis to test the relationship between dividend payout and firm profitability. Conclusion is that based on the results "dividend policy is relevant and that managers should pay attention and devote adequate time in designing a dividend policy that will enhance firm profitability and therefore shareholder value"

Oyinlola and Ajeigbe (2013) examined the impact of dividend policy on the stock prices of 22 quoted firms 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 firms. The next year Oyinlola, Oyinlola and Adeniran (2014) investigate the impact of performance on the dividend policy of two major brewery firms 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.

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).

Yegon, Cheruiyot and Sang (2014) conducted a study to ascertaining the relationship between dividend policy and firm's profitability, investment per shares. The data of this study were extracted from annual report and accounts of 2013 and 9 manufacturing firm is selected in Nairobi Stock Exchange of Kenya and other empirical study. It was discovered that the dividend policies of organizations have a significant positive relationship with profitability, investments and earnings per share of corporate organization. They proved that dividend policies of organizations are vital in enhancing the profitability and investment of manufacturing sector in Kenya.

Fathima and Abdullah (2014), sought the impact of dividend payout on corporate profitability in the Manufacturing Companies listed on Colombo Stock Exchange in Sri Lanka. For this purpose, the data were extracted from the annual reports of the 21 manufacturing companies during the period from 2007 – 2011. Regression model is used to study and estimate the relationship between dividend payout and corporate profitability. The study also employed a subsample in order to arrive at a profound conclusion with regard to the impact of dividend policy on corporate profitability. The results of the study revealed that there was a significant relationship between dividend payout and corporate profitability in terms of return on assets, return on equity and earnings per share. A positive significant relation is found between dividend payout and return on assets and return on equity for the whole sample while significant negative relationship is found between dividend payout and earnings per share as far as the dividend paying sample is concerned.

Ifuero, Osamwonyi and Iyobosa (2016) conducted a study of effect of dividend policy on firm's returns using data of seventeen (17) manufacturing firms listed on the Nigerian stock Exchange by using descriptive statistics, correlation analysis and panel regression technique, where the fixed effect regression. The finding reveal that current dividend payout, growth opportunity of firms and dividend per share has positive and significant effect on earnings per share, with that of growth having an overwhelming influence. Current dividend payout and dividend per share are both significant at the 5% level. One lagged dividend payout (previous dividend payout), cash flow and leverage have positive but not significant influence on EPS, while the impact of size is negative and not significant.

Booth and Zhou (2015) also studied the relationship between the firm performance and dividend pay-out focusing on the listed firms in the Nairobi Securities Exchange from the year 2002 to 2010. The study used regression analysis and found that there is a positive relationship between dividend payout and firm performance. The results concluded that dividend payout can be considered as a major influencing factor in the profitability of a firm. Thus, it shows that the dividend policy is related to and has a direct influence on performance.

Shisia et al., (2014) undertook a study with the purpose to establish the impact of dividend policy on financial performance of companies quoted at the Nairobi Securities Exchange (NSE). The study used data from secondary sources. Random sampling technique was adopted to select a sample of 30 listed companies. Regression and correlation analysis was used to analyse data collected. The study concluded that there is a substantial association between dividend pay-out ratio and dividend per share. This research study thus supports the theory of dividends relevance.

Uwalomwa (2012), in a research study to explore the association between the financial performance and dividend pay-out among listed firms in Nigeria, used secondary data from annual reports of fifty sampled firms between year 2006 to 2010. He used regression analysis as a statistical technique method for analysing the collected data. The research study identified that there is a weighty affirmative association between the performance of firms and the dividend pay-out of the sampled firms in Nigeria and also established that ownership structure and firm's size has a substantial impact on the dividend pay-out of firms.

Velnampy and Kalaiarasi (2014) carried out a research study to establish the association between dividend policy and firm performance of listed manufacturing companies in Sri Lanka. Secondary data was used for the period of 2008 to 2012. Descriptive statistics, regression and correlation analyses were used to analyse the collected data. The study concluded that the determining factors of dividend policy are not correlated to performance measures of the organization. Regression model showed that dividend policy does not influence companies return on asset and return on equity. Therefore this study thus supports the dividend irrelevance theory.

Conceptual Framework

The conceptualization framework that shows the relationship between the dividend policy and firm performance is as follows:

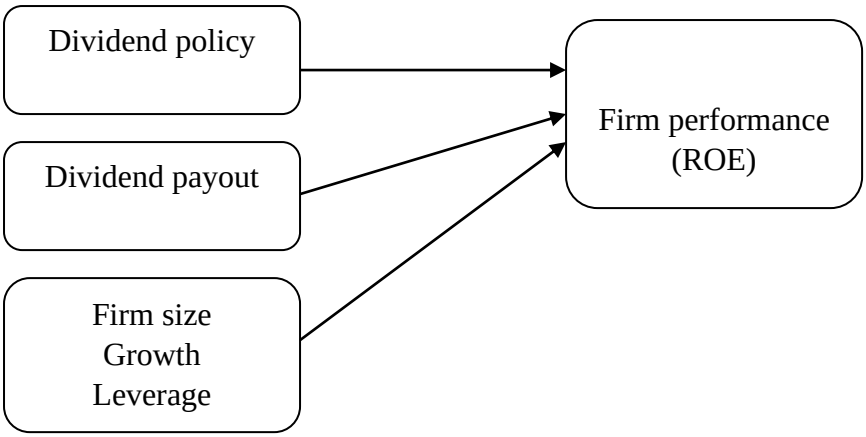

Figure 1- *Conceptual framework on the relationship between dividend policy and firm performance*
Source: Author construct (2020)

According to Figure 1, dividend policy influences firms' performance which is made up of the return of equity and return on assets in terms of profitability of the firm. It has been hypothetical that there is a relationship between dividend policy and firm performance, however, empirical studies reviewed shows that there is no conclusion on the exact relationship and how significant that relationship is. Similarly, the firm size, growth and leverage also affect firm performance, therefore, such factors were controlled in order to measure firms' performance. This study considered the kind of relationship that exists between the variables involved and whether this relationship is significant or not.

RESEARCH METHODS

Research Design

The explanatory type of study with a quantitative approach is employed to analyse the collected data. This study adopts the panel data regression model to gain the maximum possible observations to examine the impact of dividend policy on the performance of firms listed on the Ghana Stock Exchange (GSE) for the period 2012 – 2018. To analyse the data collected and make necessary recommendations to policy makers, the study employed the panel data analysis structured on the Ordinary Least Squares (OLS) regression method.

Study Population

The population for the study consisted of listed banking and non-banking companies in Ghana. All the listed firms on the Ghana Stock Exchange with complete data from 2012-2018 were targeted for the study. There are currently 44 firms on the Ghana Stock Exchange as at February, 2018. The GSE has grouped these firms into eight (8) namely; Technology, Basic Materials, Health care, Industrials, Oil and Gas, Consumer Good, Consumer Services and Financials. Listed companies were preferred over non listed firms because financial statements of listed companies are readily available at Ghana Stock Exchange unlike the non-listed companies.
The sample selection is based on a number of criteria previously employed in similar studies such as Adelegan (2003). In this study, consideration was given to firms with records of dividend payment, debts, assets and liabilities during the period under review. This eliminated firms without records of financial and market activities sufficient to estimate data for the model specified to examine the link between dividend policy and performance. The final sample for this study consists of ten (10) firms listed on the GSE with information necessary and sufficient to investigate the impact of dividend policy on the performance of firms in developing economies, evidence from Ghana.

Data Collection Instruments

The study covered the period from 2012 to 2018. Data from ten (10) companies of different sectors of banking and non-banking industries were used. Data collection can be primary or secondary. This study has used secondary data. Secondary data was be used because it has been used successful in several past studies; Ndirangu (2014) used secondary data to establish the consequence of dividend policy on future financial performance of firms listed at the NSE. Audited financial statements of the selected companies were retrieved from the Ghana Stock Exchange (GSE) website. Where the financial statements of a particular period for a selected company were not available at the Ghana Stock Exchange (GSE) website, they were retrieved from the websites of that particular company.

Panel Data

The study employed data on different variables for a period of time. This makes it a panel study type due to its longitudinal time dimension. Panel study is a type of longitudinal design in which the researcher examines the same people, phenomenon, group, or organization across multiple time points. Thus, data is gathered on the organization on different issues for more than an instance or over a period (Neuman, 2007). Moreover, this study types aids in observing the variation in the characteristics of the organization over a period.

Econometric model determination

Panel data regression analysis was employed in this study. This was appropriate for the study since the data set captured multiple characteristics of the organization over multiple period of time. Panel data combines time series and cross sectional data. Therefore, it makes a study easily to model the difference in characteristics across individuals firm. It is appropriate for this study because of its ability to take into account heterogeneity characteristics or individual effects in cross sectional data and provide details about the data.

Data Collection Procedure

The secondary data was extracted from the audited annual reports and financial statements of individual companies sourced from the Ghana Stock Exchange. In order to determine the relationship that exists between dividend payout policy and performance of companies quoted at the Ghana Stock Exchange, seven (7) years period (2012 –2018) was considered. Data collected covered all the sectors of the economy. Group consolidated annual reports and financial statements of the companies were also considered as well as the annual financial statements included the statements of comprehensive income, financial position, cash flows, changes in equity and the notes to the financial statements.

Data Analysis Procedure

Data analysis is a systematic search for meaning. It is a way to process data so that what has been learned can be communicated to others. Analysis means organizing and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques, or generate theories. It often involves synthesis, evaluation, interpretation, categorization, hypothesizing, comparison, and pattern finding (Hatch, 2002).

The data collected for this study was cleaned, edited and tested for completeness. This was done to ensure that the data used was adequately reflective, accurate and reliable for conclusion and realization of the research objective of this study. E-Views 9 was used to carry out the analysis of the data. The researcher used multiple regression analysis techniques, a statistical tool that was used to analyze the association between a dependent variable and independent variables. According to Hair (2006) the objective of multiple regression analysis is to use the independent variables whose values are known to forecast the single dependent value selected by the researcher. The data was presented in form of tables and charts where appropriate.

Stationarity test such as panel unit root test and test of multicollinearity (Variance Inflation Factor (VIF) and tolerance test) were run to satisfy the assumptions and conditions of running regression analysis. Also, Fixed Effects and Random Effects models were carried out to confirm the reliability of the data set. It is valuable for quantifying the impact of various simultaneous influences upon a single dependent variable. Further correlation analysis were used to explain the nature and significance of relationship between changes in the response variables (firm performance) and change in the prediction variables (dividend policy) identified in the study. The researcher constructed a regression model to analyze the dividend policy (the independent variables) on the firms' performance (dependent variable). The greatest advantage with regression analysis is that the parameters were estimated to show causality between explanatory variables and regressors. Parameters estimated suggest magnitude and direction the independent variables have on the explanatory variables.

Measurement of variables

The study considered an instance where a firm may not be in position to pay dividend (Amidu, 2007). To operationalize '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.

In measuring the performance of firms, researchers such as Baptista, Klotzle and Melo (2011) and Lam and Lee (2008) used accounting based criteria as financial performance indicators (Return on Assets-ROA and Return on Equity- ROE). On the other hand, Chen et al. (2005) and Ehikioya (2009) employed market based performance indicator (Tobin's q). In Ghana, Amidu (2007) employed both accounting and marketing based criteria, thus, Return on Equity and Tobin's q in measuring the performance of firms from 1997 to 2004. This

study used two accounting based (ROE) financial performance indicator as dependent variable. Dependent and independent variables as well as variables controlled in the study are as below:

Table 1- Variables, Measurement and Symbols used to represent them

Variable	Measurement	Symbol
Dependent Variable		
Return on Equity	The ratio of net profit after tax to total equity capital	ROE
Independent Variable		
Dividend Policy	Dummy variable for dividend policy 1= Dividend payment policy 0= No dividend payment policy	DPOLICY
Payout	Distributed Dividend/Number of Shares	DPOUT
Control Variables		
Firm size	Natural logarithm of total assets	SIZE
Leverage	The ratio of total liabilities to total assets	LEV
Growth	growth in sales for firm	GRTH

Model Specification

To help improve the efficiency of the economic estimates, as a result of increased degrees of freedom and reduced collinearity, panel data was used for the study. The general form of the panel regression equation could be stated as:

$Y_{it} = \alpha + \beta X_{it} + \varepsilon_{it}$ (1)

In equation (1), subscripts i and t respectively represents the cross-sectional and time series dimension of the data, while α and β also connotes constant and regression coefficients respectively. As Yi, t indicates the dependent variable, Xi, t represents the set of exogenous variables of firm i time t, and e measures the error term.

In concordance with the model used by Amidu, (2007), the specific panel regression equation used for the study is as follows:

$ROE_{i,t} = \alpha + \beta 1DPOLICY_{i,t} + \beta 2DPOUT_{i,t} + \beta 3SIZE_{i,t} + \beta 4LEV_{i,t} + \beta 5GRTH + e_{i,t}$ (2)

Where:

ROEi, t= Earnings before interest and tax divided by the book value of assets for firm *i* in period t

DPOLICYi, t= Dummy variable for dividend policy

DPOUTi, t = Dividend per share divided by earnings per share for firm *i* in period *t*;

LEVi, t = The ratio of total debt to total assets for firm *i* in period *t*;

SIZEi, t = The natural logarithm of total assets for firm *i* in period *t*;

GRTHi, t = Growth in sales for firm *i* in period *t*.

ei, t= Error term

Dependent Variable

The study uses accounting measure of performance, Return on Equity (ROE), as the dependent variable. The choice of this variable follows Amidu (2007).

Return on Equity (ROE)

Return of equity is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. ROE is expressed as a percentage and calculated as: Net Income/ Shareholders Equity

Where; Net income = Profit after Interest and Tax.

This ratio shows the earning power on shareholder's book value investment and is frequently used in comparing two or more firms in an industry. Shareholders equity does not include preferred share. It is also known as 'Return on net worth'. The ROE is useful for comparing the profitability of a company to that of the other firms in the same industry.

Independent Variables

The explanatory variable is dividend policy (DPOLICY) which is measured as dividend per share in line with Hashim *et al.*, (2013). Dividend policy is the main predictor of the outcome of this study. It represents the firms' ability to pay dividends over the years studied. Generally, as firms pay regular dividends to stockholders, it regulates the actions of management to perform creditably in order to continue the policy. They may therefore decide a policy whether to increase the dividend payment policy, fixed or no dividend payment. As firms

employ regular dividend policy, performance is more likely to increase in the short term whilst firms that adopt irregular dividend policy may increase performance but normally in the long run because of the investments such firms may retain funds to undertake such worthy projects (Oppong, 2015).
On this premise, dividend policy may be deemed to either positively or negatively affect firms' performance depending on the time horizon. In this study, dummy variables were used to represent the present or absent of dividend policy (1= Dividend payment policy 0= No dividend payment policy) and if the firms have such policy in place, dividends given to shareholders was captured as payout (DPOUT).

Control variables
In order to test the relative impact of independent variables, some control variables are included in the model to regulate for the flow of control. Such control variables included; firm's size, leverage, and growth.

Size
As firm grow, they mature, have easy access to financial market and become less dependent on internally generated funds which allow them to pay higher dividends. Larger firms pay lower transaction cost as compared to smaller ones due to the economies of scale or scale they may enjoy in operations. It therefore expected that size of a firm has positive influence on its performance. A proxy for firm size (SIZE) is the logarithm of total assets to control for size differences across the sample firms.

Growth
Firms in growth phase has investment opportunities, to finance these opportunities from internally generated funds, firms have to retain more and to pay very little or no dividend. These findings are providing support to the pecking order theory. According to Oppong (2015) mature companies are likely to be in low growth phase and less attractive investment opportunities, these firms don't have any incentive to retain more as a result of less capital expenditure firms, growth in income have been set as a control variable which is expected to have a positive impact on firms' ROE and ROA.

Leverage
This is also known as capital structure. High debt means that firms have high interest expense, which will lead to a low net income and thus less earning will be available for shareholders. Shareholders' dividends may be affected by the financing and investment plans especially in case of high leveraged firms. Earnings of highly leveraged firms are more risky and volatile and accordingly pay low dividends. Highly leveraged firms tend to pay low dividends in order to reduce transaction cost of external capital. The converse is true (Oppong, 2015). It is therefore expected that an inverse association be seen in leverage and firms' ROE and ROA.

RESULTS AND DISCUSSION

Introduction

This chapter presents the results of the data analysis and discussion. The study provided two types of data analysis; namely descriptive analysis and inferential analysis. The descriptive analysis helps the study to describe the relevant aspects of the phenomena under consideration and provide detailed information about each relevant variable. For the inferential analysis, the panel regression was used. The first part highlights the stationarity tests while the second part analyses the descriptive statistics. The third part focuses on the regression results of the fixed and random effect models. The last section presents the discussion of results.

Stationarity Tests
Panel unit root test

The variables were verified for stationarity by subjecting them to panel unit root test using Levin, Lin & Chu t, Im, Pesaran and Shin W-stat, ADF - Fisher Chi-square and PP - Fisher Chi-square test for stationary test. The variables namely: Return on Equity (ROE), Payout (DPOUT), Firm Size (SIZE), Leverage (LEV) and Growth (GRTH) are stationary at levels. The Dividend Policy (DPOLICY) could not be tested for stationarity because it is used as a dummy variable. For a variable to be accepted at stationary, more than 50% of the method (Levin, Lin & Chu t, I'm Pesaran and Shin W-stat, ADF-Fisher Chi-square and PP-Fisher Chi-square) must confirm that it is stationary.

Table 2- Results of the Panel Unit Root test for the Dependent, Independent and Control Variables.

Method	Probability				
	ROE	DPOUT	SIZE	LEV	GRTH
Levin, Lin & Chu t*	0.0000	0.0000	0.0008	0.0000	0.0000
Im, Pesaran and Shin W-stat	0.0102	0.0005	0.0182	0.0084	0.0000

ADF - Fisher Chi-square	0.0044	0.0024	0.0068	0.0008	0.0000
PP - Fisher Chi-square	0.0008	0.0574	0.0241	0.0183	0.3411

Source: Computed by researcher from annual reports of listed firms (2018)

All the four methods in Table 2, representing (100%) suggest that ROE, SIZE, and LEV are stationary at levels. Three of the four methods in Table 2, representing (75%) also suggest that DPOUT and GRTH are stationary at levels.

Descriptive Statistics

Table 3- Descriptive Statistics of the Dependent, Independent, and Control Variables

	ROE	DPOUT	SIZE	LEV	GRTH
Mean	0.120833	0.370014	7.616120	0.637119	4.100481
Maximum	0.294400	1.920000	13.57000	0.931000	6.200000
Minimum	-0.480000	0.000000	4.970000	0.194000	0.020000
Std. Dev.	0.149454	0.483916	2.327454	0.220809	1.626468

Source: Computed by researcher from annual reports of listed firms (2018)

Table 3 provides a summary of the descriptive statistics of the dependent and explanatory variables. It embodies mean, maximum, minimum and standard deviation of the variables used with the exception the Dividend Policy (DPOLICY). ROE is the dependent variable to operationalize performance interms of how profitable the firm is, (Fama and French, 2001). It measures the rate of return made by the equity investors on their investment.

The table shows an average value of 12.08% for the firms studied on Ghana Stock Exchange (GSE). This means that on average, stockholders receive Ghc0.12 0f every Ghc1 invested annually. The table also records both minimum and maximum return of -48% and 29.4% respectively, indicating the highest forgone alternative benefit an investor may obtain if he decides to invest in the banking and non-banking industries as compared to other government most risk-free assets. Additionally, ROE records a standard deviation of 14.95%, meaning the amount of variation or dispersion of the data set values are not far spread out from their mean value.

Firm size (SIZE) measures the spatial dimensions, proportions and the magnitude of the firm. With much reference to Amidu, 2007, firm size was measured as the natural logarithm of total assets. This was used as a control variable for size differences across sample firms. The control for size in this manner helps to even out all the disparities that may exist among the sampled firms. Table 3 indicates an average firm size of 7.6161.

Dividends (DPOUT) are profit sharing mechanisms allowing the distribution of a firm's profit to shareholders who own the company. The table shows that average investors receive 37% in terms of the total dividend for the period. Some of the firms however were able to record as high dividend as Gh¢1. 92 annually to every investor based the total amount of the dividend proposed for the period. There is also an average variation of 48.39% from the mean DPOUT.

Growth (GRTH) has been measured in relation to Amidu 2007, as the percentage increase in sales revenue over the previous year. The table shows that some companies were able to record a significant increase of 6.2% in revenue while others observed a gradual movement in sales revenue of 0.02%. On average, most of the firms recorded a substantial increase of 4.1% over the previous year.

Leverage (LEV) measures the proportion of debt in the overall capital structure. This has been measured as the ratio of total liabilities to total assets of the company. From the table, most of the companies could be said to be less leveraged for a successful investment. However, a maximum and minimum of 93.1% and 19.4% was recorded respectively. This implies that the firm is highly geared and this makes it riskier for safe investments. On average, the firm is leveraged at 63.71%.

Table 4- Descriptive statistics of the Independent Variable (DPOLICY)

Dummy Variable	Dividend Payment(1)	No Dividend Payment(0)
Dividend Policy (DPOLICY)	64	6

From Table 4, most of the firms paid dividend to their shareholders during the period under consideration. Out of the 70 observations, 64 times dividend payments were made while 6 times dividend payments were not made.

Test of multicollinearity

Firstly, the test for multicollinearity was done before analyzing the regression model. According to Field (2000), this test is necessary because multicollinearity can affect the parameters of a regression model. Menard (1995); Adeyemi and Fagbemi (2010) suggested that a tolerance value less than 0.1 indicates a serious multi-collinearity problem between the independent variables.

Three major methods can be used to determine the presence of multicollinearity among independent variables in a study. These methodologies involved calculation of a pair-wise correlation matrix, tolerance test and Variance Inflation Factor (VIF) (Ahsan, Abdullah, Gunfie, & Alam, 2009). In this study, the pair-wise correlation matrix

is shown at 10% level of significant. It shows the relationship among the individual variables. The lowest correlation is -0.143105. However, the highest correlation was 0.209902 between payout and growth. Since highest value was 0.209902, there was no issue of multi-collinearity between the independent variables.

Table 5- Correlation Matrix

	DPOLICY	DPOUT	SIZE	LEV	GRTH
DPOLICY	1.000000				
DPOUT	0.108447	1.000000			
SIZE	-0.143105	-0.252506	1.000000		
LEV	0.050422	0.082547	-0.536204	1.000000	
GRTH	0.119363	0.209902	-0.392793	0.070587	1.000000

Regression Results

Based on the nature of the study and the data set, panel data regression models (fixed effect and random effect) were estimated to observe the impact of the independent variables on profitability. The time-series and cross-sectioned nature of panel data usually lead to the production of bias estimators when pooled-OLS regression is used. In this study, panel data regression models (Fixed Effects and Random Effects models), were carried out to confirm the reliability or otherwise of the OLS in the study.

Table 6- Fixed- effects model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPOLICY	0.487586	0.034055	14.31758	0.0000
DPOUT	-0.020148	0.025807	-0.780720	0.4383
SIZE	0.002865	0.006473	0.442608	0.6598
LEV	0.096394	0.087905	1.096560	0.2776
GRTH	-0.001350	0.008987	-0.150262	0.8811
C	-0.395203	0.079488	-4.971879	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.852865	Mean dependent var		0.120833
Adjusted R-squared	0.815412	S.D. dependent var		0.149454
S.E. of regression	0.064211	Akaike info criterion		-2.465878
Sum squared resid	0.226767	Schwarz criterion		-1.984057
Log likelihood	101.3057	Hannan-Quinn criter.		-2.274493
F-statistic	22.77179	Durbin-Watson stat		1.875815
Prob (F-statistic)	0.000000			

Table 7- Random-effects model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPOLICY	0.491792	0.029532	16.65286	0.0000
DPOUT	-0.024801	0.019271	-1.286972	0.2027
SIZE	0.003373	0.004163	0.810168	0.4208
LEV	0.043181	0.056902	0.758874	0.4507
GRTH	-0.000611	0.007277	-0.083968	0.9333
C	-0.370323	0.060885	-6.082292	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.014682	0.0497
Idiosyncratic random			0.064211	0.9503
Weighted Statistics				
R-squared	0.824488	Mean dependent var		0.103387
Adjusted R-squared	0.810776	S.D. dependent var		0.145012
S.E. of regression	0.063080	Sum squared resid		0.254663
F-statistic	60.12938	Durbin-Watson stat		1.670989
Prob(F-statistic)	0.000000			
Unweighted Statistics				

R-squared	0.828529	Mean dependent var	0.120833
Sum squared resid	0.264274	Durbin-Watson stat	1.610219

Correlated Random effects- Hausman Test

Because the individual coefficients of the independent variables are different between the fixed and random effect models, the study attempted to check which model best fits the datasets. In order to determine which of the models is more appropriate to choose, correlated random effects- hausman test was carried out. The Hausman test basically tests whether the unique errors are correlated with the regressors. Where they are correlated, preference is made for fixed effect model; otherwise random effect model is selected. The results of the test are shown in table 7.

Null hypothesis: Random effects model is appropriate. Alternative hypothesis: Fixed effects model is appropriate.

Table 8 –Hausman Test Results

Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random		2.765728	5	0.7360
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
DPOLICY	0.487586	0.491792	0.000288	0.8042
DPOUT	-0.020148	-0.024801	0.000295	0.7863
SIZE	0.002865	0.003373	0.000025	0.9184
LEV	0.096394	0.043181	0.004490	0.4271
GRTH	-0.001350	-0.000611	0.000028	0.8885
Cross-sections included: 10				
Total panel (balanced) observations: 70				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.395203	0.079488	-4.971879	0.0000
DPOLICY	0.487586	0.034055	14.31758	0.0000
DPOUT	-0.020148	0.025807	-0.780720	0.4383
SIZE	0.002865	0.006473	0.442608	0.6598
LEV	0.096394	0.087905	1.096560	0.2776
GRTH	-0.001350	0.008987	-0.150262	0.8811

Effects Specification

Cross-section fixed (dummy variables)			
R-squared	0.852865	Mean dependent var	0.120833
Adjusted R-squared	0.815412	S.D. dependent var	0.149454
S.E. of regression	0.064211	Akaike info criterion	-2.465878
Sum squared resid	0.226767	Schwarz criterion	-1.984057
Log likelihood	101.3057	Hannan-Quinn criter.	-2.274493
F-statistic	22.77179	Durbin-Watson stat	1.875815
Prob (F-statistic)	0.000000		

Source: Computed by researcher from annual reports of listed firms (2018)

Since the p-value (0.7360) is statistically insignificant, the null hypothesis (Random-effects model is appropriate) cannot be rejected. This concludes that the random-effects model is appropriate. The Hausman test suggests that Random Effects Regression model is the most appropriate model for the study as evidenced by the Hausman Chi-sq. statistic of 2.765728 with p-value of 0.7360. The study therefore selects the coefficients of the random effect model for further discussions.

Discussion of Results

In this section, the regression results of the model of the study are presented and interpreted. This section elucidates the relationship between policy dividends and firms' performance in Ghana within the period under investigation. The hypotheses formulated for the study are also tested from the results as presented in Table 8.

Table 9- Summary of Regression Result of the model of the study

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPOLICY	0.491792	0.029532	16.65286	0.0000
DPOUT	-0.024801	0.019271	-1.286972	0.2027
SIZE	0.003373	0.004163	0.810168	0.4208
LEV	0.043181	0.056902	0.758874	0.4507
GRTH	-0.000611	0.007277	-0.083968	0.9333
C	-0.370323	0.060885	-6.082292	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.014682	0.0497
Idiosyncratic random			0.064211	0.9503
Weighted Statistics				
R-squared	0.824488	Mean dependent var		0.103387
Adjusted R-squared	0.810776	S.D. dependent var		0.145012
S.E. of regression	0.063080	Sum squared resid		0.254663
F-statistic	60.12938	Durbin-Watson stat		1.670989
Prob (F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.828529	Mean dependent var		0.120833
Sum squared resid	0.264274	Durbin-Watson stat		1.610219

Analysis of Regression Results

Table 9 reports regression results between the dependent variable and explanatory variables. In the case of a small sample, the adjusted R^2 value should be considered as it provides more accurate estimation of the true population value (Pallant, 2007). There is a rule of thumb which can be used to determine the adjusted R^2 value as follows: < 10%: poor fit, 11% to 30%: modest fit, 31% to 50%: moderate fit, > 50%: strong fit. To evaluate the study model, the value of R^2 has been considered to determine the amount of variance in the dependent variable which is explained by all variables in the formula (Pallant, 2007). The adjusted R^2 is (0.8107 or 81.1%). This indicates that the model is strong fit and shows that 81.1% of the variation in the dependent variable (ROE) can uniquely or jointly be explained by the independent variables (DPOLICY, DPOUT, SIZE, LEV, GRTH).The remaining 18.9% can be explained by other factors that are not in the model. The F-statistic (60.13) at p-value of 0.0000 explains the overall significance of the model. This indicates that there is a significance relationship between the dependent variable (ROE) and all the other independent variables (DPOLICY, DPOUT, SIZE, LEV, and GRTH).

The results portray a positive and statistically significant relationship between Return on Equity (ROE) and dividend policy (DPOLICY). That is, from table 8 when dividend policy (DPOLICY) increases by 1% Return on Equity (ROE) increase by 0.491792. 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 performance or profitability and this may be a sign of good corporate governance system in place. This is 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 of (Allen and Michaely, 2002; Gordon, 1961, 1962; Ross, et al 2002; Shefrin and Statman 1984; Easterbrook, 1984) that dividend policy affects a firm's share price.

The dividend payout (DPOUT) ratio was also included in the model to assess whether if a firm has a policy to pay dividend and eventually pays dividend, affect its return on equity. The results indicate a statistically insignificant and negative relationship between Return on Equity (ROE) and dividend payout (DPOUT). The negative coefficient means that if a firm pays dividend it reduces its retained earnings which affects its internally generated financing. The coefficient of -0.0248 suggests that as the payment of dividend per share decreases by Gh¢1, ROE is more likely to experience of fall of Gh¢ 0.0248. As a firm pays more dividends relative to earnings, its performance deflates. Intuitively, firms with low dividend payout experience high return on equity. Such firms have access to high retained earnings which they can use as a source of finance to fund profitable net present value capital investment projects. High dividend payout firms in Ghana end up with low retained earnings for financing capital projects. Such firms may lack the financial capability to raise funds internally and may rely on debt financing to fund capital projects. The finding is congruent with the results of Amidu, (2007) in terms of the impact of dividend payout on return on assets. It also supports the findings by Gill *et al.*, (2010)

and Farsio *et al.,* (2004). However, it disaffirms the findings of Amidu and Abor, (2006), Agyei and Marfo-Yiadom, (2011), Uwuigbe *et al.,* (2012) and Adu-Boanyah *et al.,* (2013).

The results show that the coefficient of firm size and leverage are positive 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 equity. The positive association of firm's size and return on equity indicates that, increasing size is associated with increase in performance (profitability). This position seems to confirm with the existing literature.

Growth (GRTH) in sales reports an insignificant negative relationship between ROE and growth. It reports a negative coefficient of (-0.000611) from the regression table above. This indicates that as firms decrease in sales revenue by 1%, return of equity is more likely to decrease by 0.000611. 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.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The objective of the study was to establish the effect of dividend policy on financial performance of listed banks and non-banking firms in Ghana. Dividend policy, dividend payout, firm size, leverage, growth were the independent variables and the dependent variable, return on equity. The results of the study revealed that dividend payout had no effect on the financial performance of listed banks and non-banking firms in Ghana. Thus amount of dividends paid does not affect the financial performance of firms but should pay dividends when they are financially strong. These findings are consistent with research finding of Velnampy and Kalaiarasi (2014) which found that dividend policy does not affect companies' return on equity. The findings of this study is inconsistent with the findings of Mohamed (2007) research which found out that there was negative relationship between return on equity and dividend pay-out.

The findings of the study confirmed that dividend policy is a major factor that influence the financial performance of listed banks and non-banking firms. It was observed that dividend policy was highly significant predictor in explaining the firms' performance (ROE).

Other factors such as firm size, leverage and growth had insignificant impact on the return of equity of listed firms (banks and non-banking). Hence firms should ensure that they have good and effective strategies that will lead to increased total asset and other factors that will result to improved financial performance of banks and non-banking firms in the future.

Based on the study, 81.1.2% of the dependent variable (ROE) can uniquely or jointly be explained by the independent variables (DPOLICY, DPOUT, SIZE, LEV, and GRTH).

The result of this study has at least one policy implication. The fact that dividend payout is still important determinant of financial performance, management should improve on their return on equity so as to increase the rate of dividends payout.

Management should adopt optimal dividend policy that would better the lots of shareholders both in the short-run and long-run. They should adopt good dividend payout policies as it will attract investors. This will increase the value of financial performance of both banking and non-banking companies in Ghana.

Recommendations

From the established findings of this study the following recommendations are formulated. Banks and non-banking firms should invest in profitable assets that will yield higher returns in the future to enhance their financial performance and attract investments in the future.

Again, the research findings revealed that there was no weighty impact of dividend payout on the financial performance and hence, investors should not rely on the amount of dividends paid to ascertain the financial stability of the firms. Moreover, it is recommended that future researchers should use the multiple method and also can include new variables and number of years to investigate the dividend policy decision.

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