

THE RELATIONSHIP BETWEEN DIVIDEND PAYOUT RATIO AND THE SHARE PRICES OF COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE

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Abstract

Conflicting theoretical models confront directors when deciding how much of a firm's net earnings to distribute to shareholders as dividends and how much to retain for expansion purposes. While some theories postulate that dividends have a positive influence on share prices such that the higher the dividend paid the higher the share price, others hold that dividends are irrelevant in determining share prices. This paper set out to establish the influence dividend payout-ratio has on the share prices of companies listed at Nairobi Securities Exchange. The data was collected from audited financial reports and daily price indices for the period January 2009 to December 2013. 54 companies consistently listed at the NSE during the five-year period were considered. The data was then analyzed using multiple regression and correlation analysis using SPSS 20. The results showed that there was a high correlation between the predictor variables and the dependent variable ($R = .685$). The model accounted for 46.9% of the variance in share prices of listed firms ($R^2 = .469$). The Durbin-Watson statistic was 1.916, suggesting that no autocorrelation exists among the variables. The F-statistic was 14.743 and significant at 5% level, implying the model was fit to explain the relationship between the variables. The results show that dividend pay-out ratio had a negative but insignificant relationship with share prices ($B = -20.432$, $p = .562$). The findings are consistent with MM's theory that dividends are irrelevant in determining the share prices; that although the dividend per share is positively correlated to the MPS, other factors influence these prices other than dividends. The study concludes that dividend pay-out ratio does not influence the market prices of shares at the NSE.

Keywords: Dividends, shares, market price, Nairobi Securities Exchange, Pay-out, Earnings

INTRODUCTION

Investors put their money in investment activities that would increase their net worth. This increase in the net worth comes in two ways for those who invest in shares; through the distribution of the companies' profits in the form of dividends and secondly through capital gains as a result of the increase in value of the price of the shares they hold.

The role played by dividend payouts in determining the market price per share (MPS) of a firm has been a contentious one and has thus attracted considerable arguments from scholars in various empirical studies. Much controversy surrounds dividends policy and Black (1976) observed that "the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together". Since then, the amount of theoretical and empirical research on dividend policy has increased significantly (Baker, 1999).

Many reasons exist why companies should pay or should not pay dividends. Yet figuring out why companies pay dividends and investors pay attention to dividends is still a problematic phenomenon. Bernstein (1996), and Aivazian and Booth (2003) revisited the dividend puzzle and noted that some important questions remained unanswered. Thus setting corporate dividend policy remains controversial and involves judgment by decision makers. There has been emerging consensus that there is no single explanation of dividends payouts policies. According to Brook et al. (1998) there is no reason to believe that corporate dividend policy is driven by a single goal.

Miller and Modigliani (1961) assert that dividend policy is irrelevant to the shareholder and that stockholder wealth is unchanged when all aspects of investment policy are fixed and any increase in the current payout is financed by fairly priced stock sales.

This study will look at how the portion of companies' earnings paid out to shareholders by firms relate or influence the price of their shares in the market. It will examine the relationship that exists between dividends paid out and the market price of shares.

Dividend Payout Ratio

Dividend payout ratio is the fraction of the net income that a firm distributes to its stockholders in form of dividends. The part of earnings not paid to investors is usually left for re-investment to provide for future growth. Investors who prefer high current income and less capital growth prefer investing in companies with high dividend payout ratio. Investors seeking capital growth may prefer lower dividend payout ratio because capital gains are taxed at a lower rate than dividends.

Dividend payout ratio is measured as a function of total the amount of cash paid out as dividends in relation to the net income for the year or the dividend per share against the

earnings per share in the same financial period. Rozeff (1982) indicate that dividend payout ratio vary widely among corporations. He points out that one of the factors which seem to influence the dividend payout ratio is the firm's funds requirement for investment purposes as observed by Higgins (1972). McCabe (1979) reports that new long term debt has a negative influence on the amount of dividends paid. Rozeff (1982) observed that firms establish lower dividend payout ratios when they anticipate or experience higher revenue growth presumably because this growth entails higher investment expenditures. This evidence supports the view that investment policy influences dividend policy; and the reason is that investment policy influences dividend policy because external financing is costly.

Conversely, firms establish higher dividend payouts when insiders hold a lower fraction of the equity and/or a greater number of stockholders own the outside equity. This evidence supports the view that dividend payments are part of the firm's optimum monitoring and bonding package and serve to reduce agency costs (Rozeff, 1982).

Market Price per Share

The market price of a share is the price at which a share trades in the stock market. The market price is influenced by many factors as derived from the Gordon's Model in which dividend, the required rate of return and dividend growth are used to compute the price of a share.

This model suggests that the price of a share (P_0) is a function of dividend paid out (D_1), the required rate of return of that share (K_s) and the growth in dividend payout (g). Theoretically therefore, both dividend payout and its growth play a role in determining the price of a share. This research paper seeks to establish to what extent this theory hold true to the companies listed in the Nairobi Securities Exchange.

Effect of Dividend Payout Ratio on Market Price per Share

Explaining dividend payout ratio as a component of a firm's dividend policy has been one of the most difficult challenges facing financial economists. This is because despite years of study, scholars are yet to completely understand the factors that influence dividend policy and the manner in which these factors interact. Black (1976) posits 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 pretty much the same today. In a survey of dividend policy, Allen and Michaely (1995) conclude that "much more empirical and theoretical research on the subject of dividends is required before a consensus can be reached". Brealey and Myers (2002) lists dividends as one of the ten important unsolved problems in finance which reinforces this conclusion. The seminal paper of Miller and Modigliani (1961) establishes that in a perfect capital market, given

an investment policy, dividends are irrelevant in determining the share value. Empirically, however, it has been observed that a change in dividend policy does have a significant impact on the share price.

Different researchers have concentrated on different types of imperfections in the market in order to understand the role of dividends. The two types of market imperfections that have been investigated are differential taxes on dividends and capital gains, and asymmetric information.

Considerations of differential taxes on dividends and capital gains have led to the clientele theory of dividend policy. The clientele theory says that shareholders face different tax rates with respect to dividends and capital gains. Shareholders sort themselves into clientele groups based on the established dividend policies of firms in such a manner that the individual shareholder has the optimum or near optimum dividend income for his/her marginal tax rates. Recently, Allen, Bernardo, and Welch (2000) have advanced a theory based on the clientele paradigm to explain why some firms pay dividends and others repurchase shares.

Consideration of the second type of market imperfection, asymmetric information, has led to two classes of theories: signaling theories and the free cash flow hypothesis. Signaling theories as postulated by Heinkel, 1978; Bhattacharyya, 1979; Miller & Rock, 1985; Williams, 1988; John & Williams, 1985; Bernheim, 1991) posits dividend policy as a vehicle used by managers/insiders to transmit private information to the market. This information is usually about the financial health of the firm. The free cash flow hypothesis as fronted by Jensen, (1986) and Easterbrook,(1984), on the other hand, postulates that dividends are used to take away excess cash from managers and put it in the hands of shareholders, a move that to large extent is aimed at resolving the agency problem.

The Nairobi Securities Exchange

In 1954 the Nairobi Stock Exchange (NSE) was constituted as a voluntary association of stockbrokers registered under the Societies Act. Today, the NSE provide a platform for the public, investors, brokers, fund and portfolio managers to interact and freely buy and sell stocks. The market forces of supply and demand are believed to drive the prices of shares in the NSE. The demand for stocks of a certain firm is usually triggered by impending information about the firm's annual financial performance. A firm's stock price is affected by, among other things, the dividend patterns. Whereas the dividend payments are done by respective companies, their impact is felt at the Nairobi Securities Exchange which therefore provide a platform to mirror the changes in prices of shares in regard to dividend payment as determinant of the price variations and price levels. Currently there are 63 companies listed in NSE. The stocks of these

companies are traded in the market and investors buy these stocks through stock brokers who are registered members of the Stock Market. Like any other market, the stock market has a regulatory body which checks on the compliance and trade activities of the stock market. The Capital Markets Authority (CMA) is charged with the responsibility of overseeing the operations of the stock market (www.nse.co.ke).

Research Problem

Every year companies grapple with how much dividend to pay out of their profits to the owners of the firm who are the stockholders. Paying dividends has become so much of an expectation and a ritual that companies go through in Kenya each year such that should a firm fail to declare and/or pay dividends in any particular year, the act would certainly illicit protest from stockholders. Many investors look forward to the payment of dividends as means of income and a return on their investments for the stocks they hold. It is imperative to try to establish whether the dividend payout ratio informs the price at which stocks trade in the market such that the higher the dividend payout ratio the higher the MPS and vice versa. In short does dividend payout ratio matter in maximizing shareholder wealth?

It is a legal requirement in Kenya that companies hold annual general meetings (AGM) each year. During the AGM, the financial report of the company is read out to the shareholders. The financial report involves the tabling of the Income Statement, the Statement of Affairs and the Cash flow Statement. It is during these AGMs that dividends are declared. The management of the companies must justify why they are paying for example a dividend of say Sh.0.75 per share and not Sh.5 per share. The signaling theory has it that when a company pays higher dividends, its communicating to the outside world that it is financially stable. The result is that when a company pays higher dividends, its MPS tends to rise as investors rush to buy its stock thereby creating demand for its shares in the stock market.

Bhattacharyya (2007) in his paper, "a model of dividend policy" argues that good managers invest more and pay less dividends. He suggests that dividends is a component of a contract set up by an uninformed principal. Miller and Modigliani (1961) established that in a perfect capital market, given an investment policy, dividends are irrelevant in determining the share value. The Gordon's Model however gives dividend a huge bearing in determining the value of a stock. There is therefore a huge gap which this study aims to establish; key among which is as to whether these prior findings hold true today in the NSE.

Karanja (1987) examined dividend practices of quoted companies in Kenya and found out that among the many reasons why companies pay dividends was lack of investment opportunities where excess company profit could be invested and reward the company with fair

returns. Njoroge (2001) studied the relationship between dividend payout and returns on assets. He found out that dividend decisions are majorly tied to returns on assets as opposed to returns on equity. Ngunjiri (2010) sought to establish the relationship between dividend payment policies and stock price volatility. He found out that there was a great impact on stock volatility arising from dividend policies.

This study intends to answer the question; do the amount of dividends paid to the investors influence the share prices in the market? Is there a relationship between the ratio of net income paid out as dividends and the price at which the shares trade in the market?

Research Objective

To establish the relationship between dividend payout ratio and the value of the market price per share of the companies listed in the NSE.

Value of the Study

It is imperative that a research study carried out makes a contribution in helping various stakeholders solve some of the challenges they face or creates an awareness which could help in making informed decisions. The findings of this study will be of benefit to;

Stockholders and Potential Investors

It is anticipated that the findings of this study will be helpful to shareholders in finding out whether the payment of dividends do help in maximizing shareholders' wealth. If it will establish that dividends hold sway in determining the prices of shares, it will recommend the continued payment of such dividends, however if they do not it will recommend that stockholders should forego dividends and have the funds invested in ventures that will maximize shareholder wealth. The study will also be important to potential investors in helping them to determine which industry to invest in and which stocks to buy.

Companies Listed in the Nairobi Securities Exchange

The individual companies listed in the NSE will also gain from this study by understanding the degree of relevance of dividend payout ratio vis-a-vis the retained earnings. This will help them formulate dividend policies and investment decisions that optimize company returns.

Academics and Researchers

Researchers and academics will find the findings of this study useful in trying to determine the value of dividends in a growing economy like Kenya. On the flipside, the study may help

point out the nature of investors in the NSE; whether they are those who value current returns (bird-in-hand) as opposed to capital gains.

LITERATURE REVIEW

Theoretical Review

Dividend policy is an area of finance that has been of great interest to scholars as evidenced by numerous studies on dividend policy, from Lintner (1956), Miller and Modigliani (1961), Bhattacharya (1979), DeAngelo et al. (1996), Fama and French (2001), Al-Malkawi (2007) and Al-Najjar and Hussainey (2009). Below are some of the theories of dividend policy;

Dividend Irrelevance Theory

Miller and Modigliani (1961) proposed that dividend policy is irrelevant to the shareholder; and that stockholder wealth is unchanged when all aspects of investment policy are fixed and any increase in the current payout is financed by fairly priced stock sales. The main assumption is that there is 100 per cent payout by management in every period. Other assumptions are that first, there exist perfect capital markets with no taxes or transactional cost where the market price cannot be influenced by a single buyer or seller, secondly that there exists a free and costless access to information about the market, thirdly that investors are rational and that they value securities based on the value of discounted future cash flow to investors, fourthly that managers act as the best agents of shareholders, and fifthly that there is certainty about the investment policy of the firm, with full knowledge of future cash flows. In light of the foregoing, they concluded that the issue of dividend policy is irrelevant.

Bird-in-hand Theory

This theory was advanced by John Lintner (1962) and Myron Gordon (1963). They argued that investors prefer to receive dividends “today” because current dividends are more certain than future capital gains that might result from investing retained earnings in growth opportunities. Investors therefore value dividend more than capital gains and a firm that pays dividend will have a higher market value. They concluded that dividend decisions are relevant and a firm that pays higher dividend has higher value.

Al-Malkawi (2007) asserts that in a world of uncertainty and information asymmetry, dividends are valued differently from retained earnings (capital gains): “A bird in hand (dividend) is worth more than two in the bush (capital gains)”. Owing to the uncertainty of future cash flow, investors will often tend to prefer dividends to retained earnings. Though this argument has been widely criticized and has not received strong empirical support, it has been supported by

Gordon and Shapiro (1956), Lintner (1962) and Walter (1963). The main assumptions are that investors have imperfect information about the profitability of a firm, that cash dividends are taxed at a higher rate than when capital gain is realized on the sale of a share; and that dividends function as a signal of expected cash flows.

Despite the tax disadvantage of paying dividends, management continue to pay dividends in order to send a positive signal about the firm's future prospects. The cost of this signaling is that cash dividends are taxed higher than capital gains. While some investors would rather have capital gains to cut down on tax impact, others may prefer dividends because they prefer immediate cash in hand. Al-Malkawi also assumed that assets in which management invest outlive management's stay in their position and that ownership of the assets is transferred to new management over time.

Agency Cost and the Free Cash Flow Theory

Agency cost is the cost of the conflict of interest that exists between shareholders and management (Ross et al., 2008). This arises when management acts in their own interest rather than on behalf of the shareholders who own the firm. This could be direct or indirect. This is contrary to the assumptions of Miller and Modigliani (1961), who assumed that managers are perfect agents for shareholders and no conflict of interest exists between them. This is somewhat questionable, as the owners of the firm are different from the management. Managers are bound to conduct some activities, which could be costly to shareholders, such as undertaking unprofitable investments that would yield excessive returns to them, and unnecessarily high management compensation (Al-Malkawi, 2007). These costs are borne by shareholders; therefore, shareholders of firms with excess free cash flow would require high dividend payments instead. Agency cost may also arise between shareholders and bondholders: while shareholders require more dividends, bondholders require fewer dividends than shareholders by putting in place a debt covenant to ensure availability of cash for their debt repayment. Easterbrook (1984) also identified two agency costs: the cost of monitoring managers and the cost of risk aversion on the part of managers.

Signaling Hypothesis

An increase in dividends is often accompanied by an increase in the prices of stock while a decline in dividend generally leads to a stock price decline (Ross, 1977). The payment of dividends is seen to convey to shareholders that the company is profitable and strong financially. Ross (1977) observes that in an efficient market, management can use dividends to signal important information to the market which is only known to them. For instance, if

management pays high dividends it signals high profits expected in future to maintain the high dividend level.

Though Miller and Modigliani (1961) assumed that investors and management have perfect knowledge about a firm, this has been countered by many researchers, as management who look after the firm tend to have more precise and timely information about the firm than outside investors. This, therefore, creates a gap between managers and investors; to bridge this gap, management use dividends as a tool to convey private information to shareholders (Al-Malkawi, 2007). Pettit (1972) observed that the amount of dividends paid seems to carry great information about the prospects of a firm; this can be evidenced by the movement of share price. An increase in dividends may be interpreted as good news and brighter prospects, and vice versa. But Lintner (1956) observed that management are reluctant to reduce dividends even when there is a need to do so, and only increase dividends when it is believed that earnings have permanently increased.

Clientele Effects of Dividends Theory

Advanced by Pettit (1977) this theory states that different groups or classes of stockholders have different preference for dividend depending on their level of income. Low income earners prefer high dividend to meet their consumption needs while high income earners prefer low dividend to avoid payment of taxes. Therefore when a firm sets a dividend policy, there will be shifting of investors into and out of the firm until equilibrium position is reached. Pettit (1977) tested for dividend clientele effects by examining the portfolio positions of approximately 914 individual accounts handled by a large retail brokerage house between 1910 and 1964. He argues that stocks with low dividend yields will be preferred by investors with high income. The retired individuals generally prefer current incomes. They may want the firm to pay out a high percentage of earnings. Such investors are often in a low or even zero tax brackets, so taxes are of no concern. On the other hand, stockholders in the peak earning years might prefer reinvestment, because they have less need for current investment income and would simply reinvest any dividends received after first paying income taxes on dividend income.

Investors tend to prefer stocks of companies that satisfy a particular need. This is because investors face different tax treatments for dividends and capital gains and also face some transaction costs when they trade securities. Miller and Modigliani (1961) argued that for these costs to be minimized, investors tend towards firms that would give them those desired benefits. Likewise, firms would attract different clientele based on their dividend policies. Though they argued that even though clientele effect may change a firm's dividend policy, one clientele is as good as another, therefore dividend policy remains irrelevant. Al-Malkawi (2007)

affirms that firms in their growth stage, which tend to pay lower dividends, would attract clientele that desire capital appreciation, while firms in their maturity stage, which pay higher dividends, attract clientele that require immediate income in the form of dividends. Al-Malkawi (2007) grouped the clientele effect into two groups, those that are driven by tax effects and those driven by transaction cost. He argued that investors in higher tax brackets would prefer firms that pay little or no dividends, to get reward in the form of share price appreciation, and vice versa. Transaction cost-induced clientele, on the other hand, arises when small investors depend on dividend payments for their needs; this clientele prefers companies who satisfy this need because they cannot afford the high transaction cost of selling securities.

Determinants of Stock Prices of Listed Companies

These are factors which determine the price levels of various stocks in the stock market.

The January Effect

Rozeff and Kinney (1976) came up with the January Effect when they found out enough evidence that there were higher mean returns on capital assets in January as compared to other months. Using the New York Stock Exchange (1904-174) they found out that the average return for January was 3.48% compared to 0.42% for other months.

Econometric Approach

Olowoniyi & Ojenike (2012) investigated the determinants of stock returns of listed firms in Nigeria using panel econometric approach to analyze panel data (2000 to 2009) from 70 listed firms in the Nigerian Stock Exchange. Stock return (dependent variable) was measured by dividend layout, expected growth was measured by capital expenditure divided by total assets, size was proxied by logarithm of firms' total assets, profitability was proxied by ratio of earnings before interest, tax and depreciation on total assets, tangibility was measured by total fixed assets divided by net profit after tax while leverage was measured by ratio of book value of total debt to total assets. The findings suggested that with the exception of profitability and tangibility (which were significantly and negatively related to stock return), all the independent variables were positively and significantly related to stock return.

Uwuigbe, Olusegun & Godswill (2012) examined the determinants of share prices in the Nigerian stock exchange market. Using the judgmental sampling technique, a total of 30 companies were selected and data (2006 to 2010) collected from the stock exchange and annual reports of the firms. The paper modelled the effects of financial performance, dividend payout and financial leverage on share price of listed firms by using regression analysis. The

study concluded that financial performance and dividend payout had a significant positive relation with share prices while financial leverage had significant negative influence on the market value of share prices in Nigeria.

Eita (2011) in investigating the macroeconomic determinants of stock market prices in Namibia used an estimation equation using time series properties of variables and concluded that stock market prices in Namibia were determined by economic activity, interest rates, inflation, money supply and exchange rates. The period under study was 1998 to 2009 and two measures of stock market development were used namely; market capitalization to GDP and the Namibian stock exchange overall index. A positive relationship existed between stock prices on one hand and money supply and economic activity on the other hand while inflation and interest rates had a negative relationship with stock prices. More information is needed on the effect of exchange rates on the stock prices.

Sharma (2011) undertook to examine the empirical relationship between equity share prices and the explanatory variables; Book Value Per (BVP) share, Dividend Per Share (DPS), Earnings Per Share (EPS), price earnings ratio, dividend yield, dividend payout, size in terms of sale and net worth for the period 1993 to 1994 and 2008 to 2009 in India. Using correlation and a linear multiple regression model the results revealed that EPS, DPS and BVP had significant impact on the market price of shares with the former two being the strongest determinants. This was echoed by Nirmala et al (2011) when they conducted a study on the determinants of share prices in India wherein share price was modeled as a function of firm specific variables; dividend, profitability, price-earnings ratio and leverage for the period 2000 to 2009. Following the panel unit root, panel co-integration, correlation and ordinary least squares tests the results revealed that dividend, price-earnings ratio and leverage are significant determinants of share prices for all sectors under consideration where dividend and price-earnings ratio bear a positive relation to share price while leverage bears a negative relation. Profitability was found to be positively related to share prices in the auto sector alone.

The Monday Effects

French (1980) analyzed daily return of stocks for the period 1953-1977 and found that there is a tendency for returns to be negative on Mondays whereas they are positive on the other days of the week. He noted that these negative returns are caused only by the weekend effect and not by a general closed-market effect. A trading strategy, which would be profitable in this case, would be to buy stocks on Monday and sell them on Friday.

Over-reaction/Under-reaction of Stock Prices to Earnings Announcement

De Bondt and Thaler(1985,1987) presented evidence that is consistent with stock prices overreacting to current changes in earnings. They observed that there was positive reaction to abnormal positive earnings and that there is negative reaction to negative earnings.

The Size Effect

The size effect indicates that stock returns are a decreasing function of firm size such that larger firm stocks have lower returns than smaller firm stocks. Thus, the size of a firm and the return on its common stock are inversely related (Annaert and Combez, 2002). Naturally, the distribution of earnings should be considered when attempting to explain the size effect. Small companies are more concerned with building equity and gaining market share than large companies are. As a result, their earnings are distributed differently. A small company is more likely to reinvest its earnings back to the company causing the retained earnings to grow faster and increasing the value of common stock. However, a large company is more likely to use its earnings in ways that generally do not increase the value of its common stock. Paying dividends to preferred stockholders is one example. Since large companies are retaining a smaller percentage of their earnings than the small firms, the common stock is returning less to its owners (Moore, 2005).

Dividend Payout Ratio

Dividend payout is summarized by the following key elements; what fractions of firms' earnings should be paid out over time on average? What amount should the firm payout as current dividends? Firms are generally free to select the level of dividend they wish to pay to holders of ordinary shares, although factors such as legal requirements, debt covenants and the availability of cash resources impose some limitations on this decision. Most firms tend to maintain a target dividend per share. The profits of firms fluctuate considerably with changes in the business environment. Dividends are increased with a lag after earnings rise only after earnings appear clearly sustainable. Empirical literature has recorded systematic variations in dividend behaviour across firms, countries, time and type of dividend (Mathur, 1979). Lintner (1956) found that the primary factor influencing a change in dividend policy was a firm's earning. Brittain (1964, 1966) and Fama et al. (1968) re-evaluated Lintner's model. Their results supported Lintner's view that managers prefer paying a stable dividend and are reluctant to increase dividend to a level that the firm cannot sustain. Fama et al. (1968) found that changes in a firm's per share dividend are largely a function of the firm's target dividend payout ratio, current or lagged earnings, and the last period's dividend.

Empirical Studies

This section reviews articles in related studies, methodologies used and the findings thereof. Lintner (1956) conducted a study on selected 28 companies extracted from 600 listed companies in the industrial sector in 1947-1953. He applied regression analysis on the relationship between current earnings and existing dividend rate and found out that firms tend to establish dividend policies with target payout ratios. He also reported that although the target payout ratios and speed of adjustments vary across firms, in most cases they stay reasonably stable over time. He further noted that companies moved to a target dividend level (based on a percentage of earnings) over a period of three years. He explained this caution in terms of managers' unwillingness to cut dividends paid to investors. The dependent variable in the decision making process according to the study was the change in existing rate and not the amount of the newly established rate as such. Based on his findings, Lintner (1956) developed the partial adjustment model of the change in the dividend level from the previous to the current period. The rationale of the model is that dividends depends on current net income and are constrained by past dividends because of reluctance to cut dividends or to raise them to a higher level which may not be maintained. The model reflect management's belief that investors dislike erratic patterns in dividend levels and hence the emphasis is on the change from the previous actual level.

Fama and Babiak (1968) examined the determinants of dividend payments by companies between 1946-1964 using regression analysis, simulations and predictor tests. The findings were that there is a positive correlation between dividends and market price of shares and that firms, net income seems to provide a better measure of profits than either cash flow or net income and depreciation included as separate variables in the model.

Theobald's (1978) test of inter-temporal dividend models on UK data was concerned with the stability of the structure of such models (by Lintner, 1967; Fama and Babiak, 1968; and Ang, 1975, as well as other variants) rather than signals *per se*; the dividend controls in force in the years examined, together with the introduction of Advanced Corporation Tax in 1973 and the dramatic changes in the rate of inflation which took place over the test period all, presumably, contributed to the poor prediction performance by each model tested. Thomson and Watson (1989), like Theobald (1978), though with substantially greater success, tested only dividend models based, *inter alia*, on a constant payout ratio on UK data.

Karanja (1987) studied dividend practices of publicly quoted companies in Kenya by collecting data through a questionnaire and obtained information about the kind of dividend policies managers of the quoted companies pursued. He found three factors to be the most important determinants of dividend policy i.e. cash and liquidity, current and prospective

shareholders and company level of distributable resource. He also found that dividend policy is also influenced by the attitude of the board of directors though he concluded that companies followed a stable dividend payout ratio. Abdul (1993) examined in a study the determinants of dividend payments by quoted companies in Kenya and found out that of all the other factors, liquidity of the company was the most important.

Easton's (1991) test of Australian data revealed evidence of an interaction effect between earnings and dividend announcements on share returns, suggesting that investors were influenced by the interplay of signals in reaching their buying and selling decisions. Liljeblom's (1989) study of the impact of the announcement of stock dividends and stock splits based on shares listed on the Stockholm stock exchange also found evidence in favour of a corroboration effect between earnings and dividend announcements.

Fernandez, et.al (1999) concluded that dividends are relevant in explaining share market value, which leads authors to believe that investors consider dividends to be a sign about firm's future economic prospects. This work was based on a sample of non-financial firms listed on the London stock exchange in the period between 1991 and 1996, resulting in a total of 4,752 observations. The authors reached the following conclusions; first, the lower the earnings level, the more sensitive firms are to dividends. Second, dividends policy is sensitive to firms' size, because the smaller the firm, the higher the expectations are regarding future earnings. Third, dividends are more important when their increase is followed by a decrease in operational income, and they are less relevant when their decrease is followed by earning increases, since the expectations regarding future prospects are partially advanced by positive earning changes and lastly dividends have higher relevance when their absolute increase is followed by an increase in the payout ratio, because in this way investors believe investment opportunities would not be diminished. The results are consistent with dividend content information hypothesis, since in accordance with this hypothesis, a dividend decrease announcement may be a pessimist message transmitted by firms' managers regarding the expectations of future prospects. Miller and Modigliani (1961) proposed that dividend policy is irrelevant to the shareholder and that stockholder wealth is unchanged when all aspects of investment policy are fixed and any increase in the current payout is financed by fairly priced stock sales.

Njoroge (2001) in a study on the relationship between dividend policies and return on assets and return on equity for companies listed at the NSE found out that there was a positive correlation between dividends paid and on both return on assets and return on equity.

A study by Balachandran (2003) investigated the impact of initial interim dividend reductions and initial final reductions upon stock prices for the UK firms that had not reduced their dividends in the previous three-year period. His empirical results supported the contention

that interim dividend reductions conveyed a stronger signal to the market than the final dividend reductions did, resulting in a stronger negative reaction as opposed to the final dividend reductions. Although the market reacted negatively around final dividend cut announcements it bounced back to its prior level within 13 days of announcements. Balachandran (2003) run also a sensitivity analysis and found that the magnitude of price reactions to dividend reductions was significantly related to the size of the dividend reduction, the post-announcement effect, the pre-announcement effect, the gearing ratio and the dummy variable interim versus final dividend reduction.

Bitok (2004) studied 'the effect of dividend policy on the value of the firms quoted at the NSE. According to the findings of the study, dividend policy is irrelevant thus implying that an optimal dividend policy exists. However, the relationship between dividend policy and the value for the firms quoted at the NSE is weak implying there are other factors (investment and financing) other than dividend policy that affect the value for the firm.

Wandeto (2005) conducted a study on the relationship between dividend changes and earnings per share using regression analysis tools. He established that there was a positive relationship between dividends per share and earnings per share with a correlation co-efficient of 25.3% and thus concluded that dividend change is sensitive to earnings per share of a company.

Kioko (2006) studied the relationship between dividend changes and future profitability of the companies listed in the NSE and established that in the year of dividend change, there existed a relationship between dividend change and future profitability however for the first and the second year after dividend change, an insignificant relationship was observed.

Mulwa (2006) used a population of 48 quoted companies in the Nairobi Stock Exchange to examine whether signaling efficiency of dividends changes the future profitability of quoted companies in Kenya. The study carried out in 1998-2002 using secondary data obtained from NSE compared actual dividend changes in relation to the earnings of the firm by employing regression analysis using a model previously employed by Benartzi et al (1997). From the comparison, it was established that at least in the year of dividend payment a relationship exists. However, for the first and second year after, though a relationship existed, it was very insignificant.

Summary of Literature Review

Traditional approach to dividend policy concludes companies distribute as much of net income as possible in the form of cash dividends, since investors prefer dividends to future capital gains. Gordon (1962) explained the preference for the current income with the bird in hand

argument. Since a bird in hand is better than two in the bush, the investors would prefer the income that they earn currently to the income in future which may or may not be available and are less risky. Dividends can give investors a sense of what a company is really worth, Gordon (1959). Pruitt and Gitman (1991) from their survey of finance managers suggest that factors such as current and past years' profits, the year-to-year variability of earnings, the growth rate of earnings, and prior years' dividends are important influences on the amount of dividends paid. These findings are consistent with Lintner's (1956) behavioral model. The survey of corporate managers' studies by Baker, et al. (1985) and Farelly, et al. (1986) concluded that the major determinants of dividend payments are the anticipated level of future earnings and the pattern of past dividends.

The conclusions of the empirical studies show the relationship between the impact of the current income, the growth of dividends paid to investors and the effect of stock price on dividend payment. Current dividend payments reduce investor's uncertainty, causing investors to discount the firm's earnings at lower rate of return to equity while dividend reduction increase investors' uncertainty raising the required rate of return.

There are glaring gaps in relation to dividend issues and share prices as most of the studies reviewed are from developed countries and their findings may not be applicable in a developing country like Kenya. For example, the assumptions upon which the dividend irrelevance theory hinges do not hold true in many perspectives in Kenya. For instance, no records from NSE and CMA indicate an instance of 100% net earnings distribution as dividends by a company. Then there are withholding taxes charged on dividends, transactional costs are incurred by investors and information access is not perfect across the board to all investors. From Agency theory, the empirical studies assume that agents act in the best interest of stockholder while in reality there is always a conflict. From the Bird in Hand theory, it's interesting to underscore the fact that despite the tax disadvantage of dividends, management of various companies continue to pay out dividends. There is also the conflict between shareholders and bondholders as the latter seem to prefer capital gain over dividends. This study will try to establish whether a dividend payout model can be used to form a common ground for both sets of investors. And although it is quite clear that the MPS is determined by various factors, it is not clear what fraction of it is explained by each of the factors. This study will determine whether a relationship exists between the DPR and the MPS, the nature of the relationship and the extent to which the DPR explains the MPS. In summary the study will establish the relevance of dividend payout out ratio in maximizing shareholder wealth through capital gains in shares (increase in the market price of shares).

RESEARCH METHODOLOGY

Research Design

Correlational or Prospective Research Design which is useful in examining relationships between two or more concepts has been adopted since this study attempts to explore relationships to make predictions. Since this study seeks to assess the relationship between dividend payout ratio and the market price of shares of companies listed in the NSE, a correlational design was deemed suitable to bring out the desired predictions. The analysis attempted to determine the degree and direction of relationship between the two variables under study. In a bivariate distribution, if the variables have the cause and effect relationship, they have high degree of correlation between them. Regression analysis is used to understand which among the independent variables is related to the dependent variable, and to explore the forms of these relationships. Significance of beta values at 5% will be interpreted using the Z-test of significance. R^2 has been interpreted for the variance it explains in the model. The analysis has been carried out using Statistical Package for Social Sciences (SPSSV20) and the results have been presented in tables.

Population

The population of interest to the researcher in this work consisted of all companies listed in the Nairobi Securities Exchange (NSE). As at December 31, 2013, there were 63 companies listed in the NSE in 11 sectors ranging from Agricultural, Automobiles, Banking, Commercial and Services, Construction and Allied, Energy and Petroleum, Insurance, Investment, Manufacturing, Telecommunications & Technology and Growth Enterprise Market Segment.

A census was adopted implying that all firms listed in the NSE were considered in this study, however, only 54 out of the 63 firms in the population have been used in the study. This is because only these 54 firms were consistently listed in NSE for the entire 5 year period of study. The other nine were either delisted or relisted or listed for the first time midstream the period of study and were thus excluded due to incomplete data.

Data Collection

In this study, secondary data of the target companies have been used. This is because using secondary data has the advantage of cost saving on use of resources to the researcher and always present accurate information (Sanders, Lewis and Thornbill, 1997).

The data was collected from the NSE because it keeps reliable and up-to-date records of all the listed firms and their financial reports. The data collected included; the dividend per

share and the earnings per share of each company for the period 2009 to 2013 which have been used to calculate the dividend payout ratio per year as below;

$$\text{DPR} = \frac{\text{DPS}}{\text{EPS}}$$

Data Analysis and Presentation

The data was collected, edited, arranged for accuracy and coded for tabulation and for analysis. The dividend payout ratio was deduced from the 2009 to 2013 annual financial reports of the listed companies as above. The tabulated data was then be entered into Statistical Package for Social Sciences (SPSS) version 20 for analysis using Linear Regression and Correlation tools. The correlation co-efficient of determination was used to determine the extent to which dividend payout ratio explains the MPS. A regression equation to determine whether there is a relationship between the two variables was adduced by subjecting dependent variable, the MPS of the companies to the independent variable, the DPR in the form below;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where;

“Y” represents the dependent variable, the MPS,

“α” represents the fixed element,

“β” represents the slope of the line equivalent to the variable element,

“X₁” represents the dividend payout ratio, DPR,

“X₂” represents the Amount of dividend paid each year, DPS,

“X₃” represents the price/earnings ratio, P/E,

“ε” is the error term representing all factors that affect the dependent variable but are not included in the model either because they are not known or difficult to measure.

X₂ and X₃ are control variables in the regression equation.

A product moment coefficient (r) was used to determine the strength of the relationship between the DPR and the MPS. Finally the coefficient of determination (r²) was be used to measure the proportion of the MPS which is predicted by the changes in the DPR. Daily market prices of shares were extracted directly from the records of the NSE indices and annual averages have been computed for the five year period between 2009 and 2013.

ANALYSIS AND RESULTS

Descriptive Analysis

Table 1 shows the descriptive analysis results as a summary for all the variables used in the study. The statistics presented at the number of observations, minimum values, maximum values, mean, median, and standard deviations.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Median
MPS	54	2.36	367.14	64.2196	78.76864	30.6600
DPR	54	-.38	5.02	.4181	.69256	.2550
DPS	54	.02	26.45	3.0863	4.99415	.8700
P/E	54	-84.36	604.22	19.5241	82.57878	8.5750

The study found that the market price per share ranged from 2.36 to 367.14 with a mean of 64.22 and a standard deviation of 78.77. The median MPS was 30.66. The results also show that the DPR ranged from -0.38 to 5.02 with a mean of 0.42 and a standard deviation of 0.69. The median DPR was 0.26. The study further revealed that DPS ranged from 0.02 to 26.45 with a mean of 3.09 and a standard deviation of 4.99. The median DPS was 0.87. The P/E ratio ranged from -84.36 to 604.22 with a mean of 19.52 and a standard deviation of 82.58. The median P/E was 8.58.

Correlation Analysis

The correlation analysis was done to detect any multicollinearity among the independent variables. The results of the correlation analysis are shown in Table 2.

Table 2: Correlation Matrix

	MPS	DPR	DPS	P/E
MPS	1			
DPR	.162	1		
DPS	.677**	.151	1	
P/E	.043	.919**	-.063	1

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation test was performed on the factors to establish whether multicollinearity was of concern. This was to determine the reliability of the multi-item scale representing the factors

used to test the main study variable of the existence of a relationship between the dividend payout ratio and the market price per share. The results are presented in table 2 above. They indicate that multicollinearity is not of concern hence the indicators used to measure the constructs are reliable. The variables correlations yielded values less than 0.5, indicating independence between the factors except DPS on MPS and P/E on DPR.

Regression Analysis

The results show that there was a high correlation between the predictor variables and the dependent variable ($R = .685$). The model accounted for 46.9% of the variance in share prices of listed firms ($R^2 = .469$). The adjusted R^2 shows that the model accounted for 43.8% of the variance in share prices (adjusted $R^2 = .438$). The Durbin-Watson statistic was 1.916 which suggests that no autocorrelation exists among the variables.

Table 3: Model Summary

R	R ²	Adjusted R ²	Std. Error of the Estimate	Durbin-Watson
.685 ^a	.469	.438	59.07409	1.916

Table 4 shows the results of the analysis of variance (ANOVA) test. The results show that the F-statistic was 14.743 and was significant at 5% level. This means that the model was fit to explain the relationship between dividend payout ratio and share prices.

Table 4: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	154350.984	3	51450.328	14.743	.000 ^b
Residual	174487.404	50	3489.748		
Total	328838.389	53			

Table 5 shows the results for the coefficients of the variables in the model. These show how each of the predictors affect share prices. The results show that dividend payout ratio had a negative but insignificant relationship with share prices ($B = -20.432$, $p = .562$). The results also show that dividend per share had a positive and significant relationship with share prices ($B = 11.357$, $p = .000$). The results further show that price/earnings ratio had a positive but insignificant relationship with share prices ($B = .241$, $p = .410$).

Table 5: Coefficients

	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients		
(Constant)	33.000	11.518		2.865	.006
DPR	-20.432	34.986	-.180	-.584	.562
DPS	11.357	1.919	.720	5.918	.000
P/E	.241	.291	.253	.830	.410

SUMMARY OF RESULTS AND DISCUSSIONS

The study found that the market price per share ranged from 2.36 to 367.14 with a mean of 64.22 and a standard deviation of 78.77. The median MPS was 30.66. The results also show that the DPR ranged from -0.38 to 5.02 with a mean of 0.42 and a standard deviation of 0.69. The median DPR was 0.26. The study further revealed that DPS ranged from 0.02 to 26.45 with a mean of 3.09 and a standard deviation of 4.99. The median DPS was 0.87. The P/E ratio ranged from -84.36 to 604.22 with a mean of 19.52 and a standard deviation of 82.58. The median P/E was 8.58.

The results show that there was a high correlation between the predictor variables and the dependent variable ($R = .685$). The model accounted for 46.9% of the variance in share prices of listed firms ($R^2 = .469$). The results show that the F-statistic was 14.743 and was significant at 5% level suggesting that the model was fit to explain the relationship between dividend payout ratio and share prices.

The results show that dividend payout ratio had a negative but insignificant relationship with share prices ($B = -20.432$, $p = .562$). The results also show that dividend per share had a positive and significant relationship with share prices ($B = 11.357$, $p = .000$). The results further show that price/earnings ratio had a positive but insignificant relationship with share prices ($B = .241$, $p = .410$).

The findings therefore imply that the Dividend payout ratio has no influence on the stock prices and the relationship that exists between the two variables is weak and negative that is it is in the opposite direction. This means that dividend payout ratio cannot be used to predict the prices of shares of listed companies.

CONCLUSIONS

The study sought to examine the relationship between dividend payout ratio and share prices for the listed firms in Kenya. The study concludes that dividend payout ratio does not influence

market share prices. Thus, the dividend payout ratio does not signal the share prices of listed firms in Kenya. This is consistent with Miller and Modigliani (1961) proposal that dividend policy is irrelevant to the shareholder. It serves to point that despite the fact that an increase in dividends is accompanied by an increase in the prices of stock while a decline will generally lead to stock price decline (Ross,1977), the ratio at which these increases or decreases occur is not relevant to the investor.

The study also examined the relationship between dividend per share and share prices of listed firms in Kenya. The study concludes that dividend per share influences the market share prices of listed firms in Kenya. Firms are therefore likely to improve their market share prices by paying more dividends to shareholders.

The study further examined the relationship between price/earnings ratio and market share prices. The results conclude that price/earnings ratio does not influence market share prices. Thus firms are unlikely to improve their market share prices through higher price/earnings ratio.

RECOMMENDATIONS

The adjusted R^2 value indicates that the model explains 43.8% of the level of share prices at the NSE, the other 56.2% is explained by other factors not included in this model.

The study recommends that for listed firms to perform better in terms of their share prices, they should focus on increasing their dividend per share rather than the dividend payout ratio or the price/earnings ratio. The DPS has a better signalling effect on the share prices than the other variables.

The non-listed firms can also learn from this study by attracting more investors through issuing dividends. It would be prudent for such firms to use dividend per share as a signal to attracting more investors through increasing the value of shares held by investors.

The study further recommends that the policy makers should make policies that will motivate more firms to pay up more dividends per share in order to improve share prices and general market capitalisation of the Nairobi Securities Exchange.

LIMITATIONS OF THE STUDY

This study was based on listed companies in Kenya. This leaves out many unquoted firms in Kenya. The results may therefore not be applicable to all firms in Kenya as they are biased towards the listed companies.

The study also did not include other factors that may influence share prices especially those associated with behavioural finance such as the herding effect.

The lack of control for other factors may limit the suitability of the model in explaining the relationship between dividend pay-out ratio and share prices.

A five year period has been used in this study yet the NSE has been in existence since pre-colonial days. This means that the duration under consideration is relatively short compared to the age of the stock market therefore the results may not be representative of the relationship between the DPR and the MPS over the years.

Annual stock price averages have been used as opposed prices as at the time the dividends were declared. This means that other factors may have influenced the share prices during the year other than the variables used in this model.

SUGGESTIONS FOR FURTHER RESEARCH

This study suggests that further studies be carried out by expanding the number of years covered from the current five to 10 years, 20 years and 50years. This may give more insights into the relationship between dividend pay-out ratio and share prices.

The study also suggests that there is need to cover more explanatory variables to improve the quality of the model. This can be done by including more control variables (more than the two that have been used) in the study in order to provide a broader measure of sensitivity and perhaps more accurate results.

The market prices as at the time that the financial statements are released and the dividends declared could be used instead of annual averages to gauge whether the dividend payout ratio has a signalling bearing in determining the stock prices.

The dividend payout ratio of unlisted companies could be included in the model to as a control try to establish if DPR has an influence on the MPS in non-quoted companies.

From the financial statements used in computing the dividend payout ratio, the recomputed DPR arising from subsequent adjustments in financial reports were not considered. This may distort some of the ratios resulting in biases.

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APPENDICES

Appendix 1: Companies Quoted At The Nairobi Securities Exchange As At 31.12.2014

Total Listed	No. In Sector	SECTOR
		AGRICULTURAL
1	1	Eaagads Ltd
2	2	Kakuzi Ltd
3	3	Kapchorua Tea Co. Ltd
4	4	The Limuru Tea Co. Ltd
5	5	Rea Vipingo Plantations Ltd
6	6	Sasini Ltd
7	7	Williamson Tea Kenya Ltd
		AUTOMOBILES & ACCESSORIES
8	1	Car & General (K) Ltd
9	2	CMC Holdings Ltd
10	3	Marshalls (E.A.) Ltd
11	4	Sameer Africa Ltd
		BANKING

12	1	Barclays Bank of Kenya Ltd
13	2	CFC Stanbic of Kenya Holdings Ltd
14	3	Diamond Trust Bank Kenya Ltd
15	4	Equity Bank Ltd
16	5	Housing Finance Co.Kenya Ltd
17	6	I&M Holdings Ltd
18	7	Kenya Commercial Bank Ltd
19	8	National Bank of Kenya Ltd
20	9	NIC Bank Ltd
21	10	Standard Chartered Bank Kenya Ltd
22	11	The Co-operative Bank of Kenya Ltd

COMMERCIAL AND SERVICES

23	1	Express Kenya Ltd
24	2	Hutchings Biemer Ltd
25	3	Kenya Airways Ltd
26	4	Longhorn Kenya Ltd
27	5	Nation Media Group Ltd
28	6	Scangroup Ltd
29	7	Standard Group Ltd
30	8	TPS Eastern Africa Ltd
31	9	Uchumi Supermarket Ltd

CONSTRUCTION & ALLIED

32	1	ARM Cement Ltd
33	2	Bamburi Cement Ltd
34	3	Crown Paints Kenya Ltd
35	4	E.A.Cables Ltd
36	5	E.A.Portland Cement Co. Ltd

ENERGY & PETROLEUM

37	1	KenGen Co. Ltd
38	2	KenolKobil Ltd
39	3	Kenya Power & Lighting Co Ltd
40	4	Kenya Power & Lighting Ltd 4% Pref 20.00
41	5	Kenya Power & Lighting Ltd 7% Pref 20.00
42	6	Total Kenya Ltd
43	7	Umeme Ltd

INSURANCE		
44	1	British-American Investments Co.(Kenya) Ltd
45	2	CIC Insurance Group Ltd
46	3	Jubilee Holdings Ltd
47	4	Kenya Re Insurance Corporation Ltd
48	5	Liberty Kenya Holdings Ltd
49	6	Pan Africa Insurance Holdings Ltd

INVESTMENT		
50	1	Centum Investment Co Ltd
51	2	Olympia Capital Holdings Ltd
52	3	Trans-Century Ltd

MANUFACTURING & ALLIED		
53	1	A.Baumann& Co Ltd
54	2	B.O.C Kenya Ltd
55	3	British American Tobacco Kenya Ltd
56	4	Carbacid Investments Ltd
57	5	East African Breweries Ltd
58	6	Eveready East Africa Ltd
59	7	Kenya Orchards Ltd
60	8	Mumias Sugar Co. Ltd
61	9	Unga Group Ltd

TELECOMMUNICATION & TECHNOLOGY		
62	1	Safaricom Ltd

GROWTH ENTERPRISE MARKET SEGMENT (GEMS)		
63	1	Home Afrika Ltd

Source: www.nse.co.ke, August, 2014.