## THE EFFECT OF DIVIDEND PAY OUT ON THE SHARE PRICES OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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## DECLARATION

This research project is my original work and has not been presented for a degree or any other
examination to any other university.
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This research project has been submitted for examination with my approval as the University Supervisor

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## **DEDICATION**

This project is dedicated to my husband David Mwathi and daughter Alma Nyakio for their understanding, patience and words of encouragement that they offered me throughout my course of study.

To my parents Mrs. Cecily Njeru, Mr. Patrick Nyaga, Mr & Mrs John Kihara, my grandfather Mr. Njiru Munyari and siblings Elizabeth Njeru & Esther Wairimu thank you for your invaluable support and encouragement during my entire academic period.

May God bless you all.

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## LIST OF ABBREVIATIONS

**AR-** Abnormal Returns AAR- Average Abnormal returns BIHH - Bird -in-the-Hand CAPM - Capital Asset Pricing Model CMA- Capital Markets Authority CAAR- Cumulative Average Abnormal Returns DE – Debt – Equity Ratio DSE - Dhaka Stock Exchange DP - Dividend Policy DPOR - Dividend Payout Ratio EPS - Earnings Per Share **IPO - Initial Public Offering** MM - Modigliani & Miller MPS - Market Price per Share NASI - Nairobi All Share Index NSE- Nairobi Securities Exchange NAVS - Net Assets Value per Share NSE - Nairobi Securities Exchange NYSE - New York Stock Exchange **REPS** - Retained Earnings Per Share **US** - United States

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## ABSTRACT

This study attempts to explain the effect of dividend payout on share prices of companies listed at the Nairobi Securities Exchange. A census of all the 64 listed companies from the Nairobi Securities Exchange was examined for a period of 5 years from 2010 to 2014. This study was limited to companies that were listed during the 5 year period and those that paid dividends within the study period. The event study methodology was used with a 21-day event window, 10 days before the dividend payment date and 10 days after the payment date and day 0 being the dividend payment date. The analysis was conducted for a period of five years. The abnormal returns were calculated by subtracting the expected returns from the daily returns and adding the dividend paid during the period for each of the days. The cumulative average returns were then calculated by summing daily abnormal returns before and after the payment. A graph of the average abnormal returns and the cumulative average abnormal returns for the period was then plotted for each of the years to show the trend of abnormal returns over the event window. Generally, the AAR for all the years increased before the payment date but decreased after the payment date. The curve for CAAR was almost flat before dividend payment but sloped slightly downwards after the dividend payment date. This shows that share prices react negatively towards the dividend payment in all the five years. From the test of significance, dividend payment had a statistically significant influence on share prices in all the 5 years hence confirming the existence of a negative effect of dividend payout on share prices of firms listed at the NSE. This study therefore recommends diligence in the handling of dividend payout information among the sector players in a bid to ensure that there is inclusivity of the stock market stakeholders. Therefore, policies guiding the sharing of this information should be availed to enhance market control.

#### **CHAPTER ONE**

## **INTRODUCTION**

## 1.1Background of the Study

Dividend is the return that accrues to shareholders as a result of the money invested in acquiring the stock of a given company (Eriki & Okafor, 2002). It is basically the benefit of shareholders in return for their risk and investment.Dividend policy refers to management's long-term decision on how to deploy cash flows from business activities, that is, how much to invest in the business, and how much to return to shareholders (Nazir et al., 2010). Dividend payout is the percentage of earnings a company pays in cash to its shareholders (Van, 2001). Dividend policy connotes to the payout policy, which managers pursue in deciding the size and pattern of cash distribution to shareholders over time. Managements' primary goal is shareholders' wealth maximization, which translates into maximizing the value of the company as measured by the price of the company's common stock. This goal can be achieved by giving the shareholders a "fair" payment on their investments. However, the impact of firm's dividend policy on shareholders wealth is still unresolved.

Furthermore, various scholars have had conflicting views about dividend policy. Miller and Modigliani (1961) demonstrated that under certain assumptions about perfect capital markets, dividend policy would be irrelevant. They argued that dividend policy has no effect on either the price of a firms share or its cost of capital. They rather argue that the firm's value is determined only by its basic earnings power and its business risk, that is, the value of the firm depends only on the income produced by its assets, not on how this income is split between dividends and

retained earnings. However, Miller and Scholes (1982) argue that in the real world, dividend decision is inspired more by high taxes on dividends than capital gains and market imperfections. On the other hand, Diamond, (1967); Gordon, (1963); Lintner, (1962); Walter, (1963) propose that cash dividends now are worth more than capital gains to be received in future (a bird in hand is worth more than two in the bush). Yet Brigham and Houston, (2004), assert that investors are interested in the income after tax. Dividends may have higher taxes than capital gains and thus investors prefer capital gains to cash dividends due to the tax effect.

Managers must not only consider the question of how much of the company's earnings are needed for investment, but also take into consideration the possible effect of their decisions on share prices. Lintner (1956) argues that firms of developed markets target their dividend payout ratio with the help of current earnings and past dividends. In order to reach such targets, various adjustments are made in the dividend policy of a firm and therefore firms should have stable dividend policies. Alli, Khan and Ramirez (1993) observe that a change in the payout policy provides information about future earnings and a further change in the value of share price. This indeed shows a strong signaling effect of the dividend decision of a firm.

### **1.1.1 Dividend Pay Out Ratio**

The dividend payout ratio measures the percentage of net income that is distributed to shareholders in the form of dividends during the year. In other words, this ratio shows the portion of profits the company decides to keep to fund operations and the portion of profits that is given to its shareholders. Investors are particularly interested in the dividend payout ratio because they want to know if companies are paying out a reasonable portion of net income to investors. Dividend payout of a firm is not the only source of cash flow to the shareholders but it also provides information relating to firm's current and future performance. A considerable number of papers, including Bhattacahrya (1979; 1980), Linter(1962), Miller and Rock (1985) suggest that firms dividend payout policies are designed to reveal the future prospects to investors.

Dividend decisions are important because they determine what funds are to be paid out to investors and what funds are retained by the firm for investment (Ross, Westerfield&Jaffe, 2002). They provide information to stakeholders about the company's performance. Dividends are critical in the commercial world because they are a major cash outlay for companies and constitute the key method by which investors receive return on their investment or shares in a given company (Ross et al, 2010). Firm investments determine future earnings and future potential dividends, and influence the cost of capital. Dividend policy is therefore, considered to be one of the most important financial decisions that corporate managers encounter (Baker & Powell, 1999).

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 increase corporate market value. Mizuno (2007) also agrees to the fact that a firm should pay dividends to shareholders if it cannot identify suitable investments which would bring higher returns than those expected by the shareholders. Conversely, some companies want to spur investors' interest so much that they are willing to pay out unreasonably high dividend percentages. Investors can see that these dividend rates can't be sustained for very long because the company will eventually need money for its operations.

## 1.1.2 Share Prices

Share price refers to the price of a single share of a number of saleable stocks of a company (Huang, 2004). Once the stock is purchased, the owner becomes a shareholder of the company that issued the share. Shareholders have certain rights and privileges by virtue of owning shares in a firm (Brigham & Daves, 2010). Shareholders invest their money in the shares of a company in the expectation of a return on their invested capital. Share return is the gain or loss of a security in a particular period. The return consists of the income (dividends) and the capital gains relative on an investment. Capital gain is the profit that results when the price of a security rises above its purchase price when the security is sold (realized gain). If the security continues to be held, the gain is unrealized. A capital loss would occur when the opposite takes place. Forces of demand and supply determine the prices of securities at a particular time. If a particular security is available in abundant supply, it will sell at a lower price than usual. Similarly, if there are more buyers than sellers the price will have a tendency to rise. But demand and/or supply of securities is dependent on company factors, industry factors, micro and macro-economic conditions as well as general economic outlook.

In financial and economic theory, analysts use random walk techniques to model behaviour of asset prices, in particular share prices on stock markets, currency exchange rates and commodity prices. This practice has its basis in the presumption that investors act rationally and without bias, and that at any moment they estimate value of an asset based on future expectations. Under these conditions, all existing information affects the price, which changes only when new information comes out. The new information comes out randomly and influences prices randomly (Huang, 2004).

#### **1.1.3 Effect of Dividend Payout Ratio on Share Prices**

Gordon (1959) suggested that there were three possible hypotheses for why investors would buy a certain stock. First, to obtain both dividends and earnings; second, to obtain dividends, and finally to get the earnings. He examined these hypotheses by estimating different regression models using cross-section sample data of four industries (chemicals, foods, steels, and machine tools) for two years 1951 and 1954. The dividend hypothesis was tested using a linear regression. Gordon found that dividends have greater influence on share price than retained earnings. In addition, he argued that the required rate of return on a share increases with the fraction of retained earnings because of the uncertainty associated with future earnings. Similarly, Gordon (1963) argued that higher dividend payouts decrease the cost of equity or the required rate of return on equity.

Many theories have been formulated with a view to explain the effect of dividends on value of shares. The theories, with opposing points of view, can be grouped in three categories. On one side, there are theorists who believe that an increase in dividend payouts increases value of the firm. On the other hand, there is a group of theorists who share the view that an increase in dividend payouts reduces value of the firm. In the middle, lies a set of theorists who claim that dividend payouts do not affect value of the firm. Gordon and Lintner (1963) argued that high dividend payouts reduce risks and this affects share prices. On the other hand, Litzenberger and Ramaswamy (1979) argued that low dividend payouts attract reduced taxes which influence share prices. Miller and Modigliani (1961) propagated a theory that dividend policy does not have any effect on share price because the value of a firm depends only on its basic earning power and its business risk.

According to the so-called "bird-in-the hand" hypothesis (henceforth BIHH) high dividend payout ratios maximize a firm's value. Graham and Dodd, for instance, argued that a dollar of dividends has, on average, four times the impact on stock prices as a dollar of retained earnings (Diamond, 1967). Modigliani and Miller (1961) have criticized the BIHH and argued that the firm's risk is determined by the riskiness of its operating cash flows, not by the way it distributes its earnings. Consequently, Modigliani and Miller called this argument the bird-in-the-hand fallacy. Further, Bhattacharya (1979) suggested that the reasoning underlying the BIHH is fallacious. Moreover, he suggested that the firm's risk affects the level of dividend not the other way around. That is, the riskiness of a firm's cash flow influences its dividend payments, but increases in dividends will not reduce the risk of the firm. The notion that firms facing greater uncertainty of future cash flow (risk) tend to adopt lower payout ratios seems to be theoretically plausible.

## **1.1.4The Nairobi Securities Exchange**

Nairobi Securities Exchange (NSE) limited was constituted in 1954 as a voluntary association of stock brokers registered under the Societies Act (Ngugi, 2005). NSE has been characterized by humble beginnings and it has grown considerably over time. It came into being in the 1920s when Kenya was still a British colony whereby an informal way of dealing in shares and stocks were beginning (Ngugi, 2005). Trading of shares was only limited to members of the European community and Africans but Asians were not permitted to deal in securities until Kenya became independent in 1963 when they were allowed trade in the stock market.

The NSE is regulated by the Capital Markets Authority of Kenya (CMA) which is constituted under Capital Markets Authority Act Cap 485A. The CMA was established to regulate and oversee the orderly development of Kenya's capital markets (NSE handbook, 2012). The NSE is a member of Africa stock association and uses two indices; NSE 20 share index and the NASI (Nairobi All Share Index). The NSE 20 share index measures the performance of 20 blue chip companies' with strong fundamentals and which consistently reports positive financial results. The NASI index incorporates all the traded shares of the day and therefore its attention is on the overall market capitalization (NSE 2010). The NSE experienced robust growth activity and high returns on investment since 2003.It is therefore reference point in the East Africa region for other markets in terms of setting standards. As an emerging capital market it has faced challenges to its development and growth such as economic depression and political uncertainty.

The volatility in NSE share prices are as a result of changes in the economic environment which if not closely monitored may impact negatively on the share returns. Of great concern to share price volatility are fluctuations of the macro variables which have been seen to be the reason behind the assortment of ills that cause the fluctuations in the stock market returns in Nairobi Stock Exchange Limited (Nairobi Stock Exchange, 2013). Most firms quoted in the NSE usually pay dividends in the form of cash dividend and bonus shares. Firms also execute share splits although share splits are not dividends. Buy back of shares as a form of dividend is rare in Kenya. Cash dividends are usually paid twice in any given financial year as interim, in the middle of the year, and final dividend which is paid after end of the financial year. In some years when there is unexpected income, firms pay a one-off dividend extra dividend which is not repeated in the subsequent years. However, there are some firms which have not paid a dividend for many years because of financial difficulties such as Uchumi Supermarkets. Other firms such as National Bank stayed for a long period of time before paying a dividend (Ratib, 2013).

#### **1.2 Research Problem**

Modigliani and Miller (1961) put forward the irrelevance theorems, more commonly known as the MM theorems and these form the foundation of modern corporate finance theory. The two main conclusions that are drawn from the MM theorems are that firm value is dependent on its current and future free cash flow. Secondly, the level of dividends (or dividend policy) does not affect firm value given that firms maximize their value through investment. The difference between equity issued and payouts of the firm is equal to its free cash flow. Hence, dividend policy is irrelevant when it comes to affecting firm value. The studies carried out by Black and Scholes (1974) and Miller and Scholes (1982) are in line with the propositions of the MM theorem. The "Bird in Hand" theory of Gordon (1962) argues that outside shareholders prefer a higher 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 mode fails if it is posited in a complete and perfect market with investors who behave according to notions of rational behaviour (Miller andModigliani, 1961;Bhattacharya, 1979).

Few research studies have been conducted in Kenya to determine the relationship between dividend payouts and share prices at the NSE. The studies appear to give mixed conclusions on the effect of dividend payouts on share prices at the NSE. Karanja (1987) conducted a study on dividend practices of companies that are listed on the NSE and established that there are many reasons why firms pay dividends to shareholders. One of the key reasons was inadequate investment opportunities which promise sufficient returns. A company's cash position would be the most important consideration when making dividend decisions. Njoroge (2001) studied the relationship between dividend payments and certain financial ratios such as return on assets of firms listed at the NSE. He found out that the most significant variable in making dividend decisions is return on assets while return on equity and growth in assets are not considered in making dividend decisions. Mulwa (2006) carried out a study on the relationship between dividend changes and future profitability of firms listed at the NSE. He discovered that at least in the year of dividend change a relationship was in existence. In the subsequent first and second year after the dividend, he noted an insignificant relationship.

Ngunjiri (2010) in his analysis of the relationship between dividend payment policies and share price volatility observed that dividend payment policies had a great impact on the share price volatility. Abdi (2010) did a study on signaling effect of dividend payment on the earnings of the firms in NSE. He concluded that dividend payout ratio is positively related with future earnings although the association is low. Murekefu and Ouma (2012) in their study on the relationship between dividend payout and firm performance for firms listed at the NSE established that there exists a strong relationship between dividend policy and firm performance. Njonge (2014) in his analysis of effect of dividend policy on shares prices of companies listed at the NSEconcluded that there is no significant difference between the share price before and after the cash dividend payment.

Corporate dividend payout policy has captured the interest of financial economists of this century and over the last five decades; it has been the subject of intensive theoretical modeling

and empirical examination around the world. A number of conflicting theoretical models, which lack in strong empirical support, define current attempts to explain corporate dividend behavior. Black (1976) best captures this unfortunate situation in his article "The Dividend Puzzle" where he said, "What should the corporation do about dividend policy? We don't know." There are theories which hold that an increase in dividend payouts increase value of shares whereas there are other theories which do not find any impact of dividend payouts on share prices. There are also theories which claim that dividend payouts reduce value of the shares. Unfortunately, the conflicting theories do not help financial managers, who are responsible for deciding on a company's dividend payment patterns, as they would want to know how dividend payouts affects the value of their share prices. This necessitated the researcher to carry out the study to establish the effect of dividend payout on share prices of companies listed on the NSE hence bridge the research gap. This study will answer the question; what is the effect of dividend payout ratio on share prices of firms listed at the NSE?

## **1.3 Objective of the Study**

The main objective is to establish the effect of dividend payout ratio on share prices of firms listed at the NSE.

#### **1.4 Value of the Study**

This study would be important to stock market players who include investors both current and potential, portfolio managers and all interested parties in the stock exchange who use dividend payout effect to measure their trading expectations. It will help investment analysts in understanding the behavior of the stock market and inform their investment strategies. They could use the findings of this study to determine the best investment strategies in the NSE. Results of this study can be used by securities analysts and investors for their investing strategy.

Stock broker managers and other investment consultants would find the effect of dividends on share prices useful when advising their clients on investment decisions.

Finance scholars have conducted many studies with a view to explain dividend policy but there are no unanimous conclusions. Academicians may consider using the findings of the study to conduct more research in this and related areas. The research will help them in reviewing literature thereby adding to the existing body of knowledge in the area of the relationship between dividend payout and share prices. Evidence obtained from this study will cast more light on the support of the theory that markets are efficient.

Managers will be able to know the information content of dividend payout and hence use dividends to convey important information to shareholders. The research will help in satisfying the shareholder's expectations when they learn the relationship between dividend payout and share prices. The research will help the government to adopt different strategy in the country and formulate policies that will help curb exploitation by various companies and protect the public. It will also help government in formulation of polices that would protect shareholders from exploitation by firm managers by knowing the information content of dividend payout and the importance of this information for companies.

#### CHAPTER TWO

## LITERATURE REVIEW

### **2.1 Introduction**

This chapter summarizes literature, theories and empirical studies that have been done in connection with the relationship between dividend payouts and share prices. The study focuses on effects that a firm's dividend policy might have on the market price of its common stock. It will contain literature on various dividend policies, determinants of share prices and relationship between dividend payout and the share prices.

## **2.2 Theoretical Literature Review**

Literature on dividend policy has produced a large body of theoretical and empirical researches, especially following the publication by Lintner (1956) that favours the relevance of dividend policy in the valuation of firm's share price. Ever since, there has never been a general consensus of findings. Why dividend policy should remain so evidently important has been theoretically controversial. Three main contradictory theories of dividends can be identified. Some argue that increasing dividend payments increases a firm's value. Another view claims that high dividend payouts have the opposite effect on a firm's value; that is, it reduces firm value. The third theoretical approach asserts that dividends should be irrelevant and all effort spent on the dividend decision is wasted. These views are embodied in several theories of dividend policy as discussed below:

#### **2.2.1 Dividend Irrelevance Theory**

Modigliani andMiller, (1961) proposed irrelevance of dividend policy theory suggesting that thewealth of the shareholders is not affected by dividend policy. It is argued in their theory that thevalue of the firm is subjected to the firm's earning, which comes from company's investment policy. The literature proposed that dividend does not affect the shareholders' value in the world without taxes and market imperfections. They argued that dividend and capital gain are two main ways that can contribute profits of firm to shareholders. When a firm chooses to distribute its profitsas dividends to its shareholders, then the stock price will be reduced automatically by the amount of a dividend per share on the ex-dividend date. So, they proposed that in a perfect market, dividendpolicy does not affect the shareholder's return. Brennan(1971) supported the irrelevancy theory of Modigliani & Miller and concluded that any rejection of this theory must be based on the denyingof the principle of symmetric market rationality and the assumption of independence of irrelevantinformation.

Black and Scholes (1974) created 25 portfolios of common stock in New York Stock Exchange forstudying the impact of dividend policy on share price from 1936 to 1966. They used capital assetpricing model for testing the association between dividend yield and expected return. Their findingsshowed no significant association between dividend yield and expected return. They reported thatthere is no evidence that different dividend policies will lead to different stock prices. Theirfindings were consistent with dividend irrelevance hypothesis.Hakansson (1982) supported the irrelevance theory ofModigliani & Miller and claimed that dividends, whether informative or not, is irrelevant to firm's value when investors have homogeneous belief and time additive utility and market is fully efficient. Uddin and Chowdhury (2005) selected 137 companies which were listed on Dhaka Stock Exchange (DSE) and studied the relationship between share price and dividend payout. The results implied that dividend announcement does not provide value gain for investors and shareholders experience approximately 20 % loss of value during thirty days before the announcement of dividend to thirty days following the announcement. He suggested that current dividend yield can reimburse the diminished value to some extent. Generally, his findings supported the irrelevancy of dividend policy.

#### 2.2.2 Bird-In-The Hand Hypothesis

Al-Malkawi (2007) asserts that in a world of uncertainty and information asymmetry, dividends are valued differently from retained earnings (capital gains). Graham, Dodd and Cottle (1962) came out with "bird in hand" theory with the view that dividends are worth more to investors than retained earnings. Their argument was that investors will apply a lower discount rate to the expected stream of future dividend than the more distant capital gains, that is, the bird in bush. This theory conforms to Gordon Growth Valuation Model that places higher value on the firms that offer higher dividend. Gordon (1962) suggested a valuation model relating the market value of the stock with dividendpolicy. Gordon studied dividend policy and market price of the shares and proposed that thedividend policy of firms affects the market value of stocks even in the perfect capital market. Hestated that investors may prefer present dividend instead of future capital gains because the futuresituation is uncertain even if in perfect capital market. Indeed, he explained that many investorsmay prefer dividend in hand in order to avoid risk related to future capital gain. Modigliani &Miller (1961) have criticized the BIHH and argued that the firm's risk is determined by the riskiness of its operating cash flows, not by the way it distributes its earnings. Consequently, Modigliani & Miller called this argument the bird-in-the-hand fallacy. Further, Bhattacharya (1979) suggested that the reasoning underlying the BIHH is fallacious. Moreover, he suggested that the firm's risk affects the level of dividend not the other way round. That is, the riskiness of a firm's cash flow influences its dividend payments, but increases in dividends will not reduce the risk of the firm. The notion that firms facing greater uncertainty of future cash flow (risk) tend to adopt lower payout ratios seems to be theoretically plausible.

## 2.2.3 Clientele Effects of Dividends Hypothesis

Modigliani & Miller (1961) noted that the pre-existing dividend clientele effect hypothesis might play a role in dividend policy under certain conditions. They pointed out that the portfolio choices of individual investors might be influenced by certain market imperfections such as transaction costs and differential tax rates to prefer different mixes of capital gains and dividends. Modigliani & Miller argued that these imperfections might cause investors to choose securities that reduce these costs. Modigliani & Miller termed the tendency of investors to be attracted to a certain type of dividend-paying stocks a "dividend clientele effect". Allen, Bernardo and Welch (2000) suggest that clienteles such as institutional investors tend to be attracted to invest in dividend-paying stocks because they have relative tax advantages over individual investors. On the other hand, some investors (e.g. wealthy investors), who do not rely on their share portfolios to satisfy their liquidity needs, prefer low payouts to avoid the transaction costs associated with reinvesting the proceeds of dividends, which they actually do not need for their current consumption. Pettit (1977)investigated to what extent transaction costs and taxes can affect the investor's portfolios in USA. His findings provided empirical proof supporting the clientele effect theory. He studied 914 investors' portfolios and reported that investors' ages and their portfolios' dividend yield are positively related. He also reported that investors' incomes and dividend yield are negatively related. Pettit proposed that aged investors with low-income are more dependent on their portfolios for financing their current consumption. Therefore, they prefer investing in stock with high-payout to avoid the transaction costs of selling stock. He also demonstrated that investors who have portfolios with low un-diversifiable risk prefer high-dividend stocks. His findings also supported the tax-induced clientele effect. Scholz (1992) used self- reported data from 400 individuals in the survey of consumer finance (SCF) and developed an empirical model for testing the dividend clientele effect through analyzing the information of investors' portfolios. His findings showed that difference between tax rate for capital gains and tax rate for dividends has effect on traders' preference for having high-payout stock in their portfolio or low-payout stock.

## **2.2.4Tax-Effect Hypothesis**

Fama and French (2001) found that firms with higher growth and investments tended to have lower payouts. In an earlier survey, Baker and Powell (1999) found a similar rate of agreement (17.7 percent) about the bird-in-the hand explanation of dividend relevance. This relationship between pre-tax returns on stocks and dividend yields is the basis of a posited tax-effect hypothesis. Brennan (1970) developed an after-tax version of CAPM to test the relationship between tax risk-adjusted returns and dividend yield. Brennan' s model maintains that a stock's pre-tax returns should be positively and linearly related to its dividend yield and to its systematic risk. Higher pre-tax risk adjusted returns are associated with higher dividend yield stocks to compensate investors for the tax disadvantages of these returns. This suggests that, ceteris paribus, a stock with higher dividend yield will sell at lower prices because of the disadvantage of higher taxes associated with dividend income.

Litzenberger et al.,(1979) extended Brennan's (1970) model and used a monthly dividend yield definition in classifying stock into yield classes, a positive dividend-yield class and zero dividend-yield class. Litzenberger et al., (1979,p.190) concluded that, "for every dollar increase in return in the form of dividends, investors require an additional 23 cents in before tax returns". The implication of this finding is that firms could increase their share prices by reducing dividends. Miller and Scholes (1982) challenged Litzenberger et al., (1979) conclusion, and criticized their short-term (monthly) definition of dividend yield. They suggested that tests employing a short-term dividend yield definition are inappropriate for detecting the impact of differential tax treatment of dividends and capital gains on stock returns.

#### **2.2.5 Signalling Theory**

Pettit (1972) observed that theamount of dividend paid seem to carry great information about the prospects of a firm as evidenced by the movement of share price. An increase in dividend may be interpretedas good news and brighter prospects and vice versa. Lintner (1956) observed thatmanagement are reluctant to reduce dividend even when there is the need to do so and onlyincrease dividend when it is believed that earnings have permanently increased. In the early 1980s, signalling theory was analyzed. It revealed that information asymmetry between

managers and outside shareholders allows managers to use dividends as a tool to signal private information about a firm's performance to outsiders.

As observed by Murekefu and Ouma (2012), cash dividend announcements convey valuable information, which shareholders do not have, about management's assessment of a firm's future profitability thus reducing information asymmetry. Such information can be made use of by investors in assessing the firm's share price and making investing decision. Amihud and Murgia (1997) used 200 German firms as sample and studied the stock price response to dividend announcement for the period of 1988 to 1992. They considered 255 cases of raise in dividend and 51 cases of decline in dividend. Their results reinforced this statement that dividend changes may be a signal of future prospect of firms. They presented the abnormal return of + 0.965 percent for dividend increase and abnormal return of -1.73 percent for dividend decrease.

#### 2.2.6 Agency Cost Theory

Agency cost is the cost of conflict of interest that exists between shareholders and management (Ross et al. 2008). This arises when management act on their behalf rather than on behalf of shareholders who own the firm. Thiscould be direct or indirect. Even if a firm does not have free cash flow, dividend payments can still be useful for the shareholders in order tocontrol the overinvestment problem. Easterbrook (1984) argues that dividends reduce the over investmentproblem because the payment of dividends increases the frequency with which firms have to go to equitymarkets in order to raise additional capital. In the process of attracting new equity, firms subject themselves to the monitoring and disciplining of these markets. This lowers agency cost. The agency cost theory suggests that, dividend policy is determined by agency costs

arising from the divergence of ownership and control. Managers may not always adopt a dividend policy that is value-maximizing for shareholders but would choose a dividend policy that maximizes their own private benefits. Making dividend payouts which reduces the free cash flows available to the managers would thus ensure that managers maximize shareholders' wealth rather than using the funds for their private benefits (DeAngelo et al., 2006).

Though this is contrary to the assumptions of Modigliani and Miller (1961) who assumed that managers are perfect agents for shareholders and no conflictof interest exist between them. This is somewhat questionable, as the owners of the firm aredifferent from the management. Managers are bound to conduct some activities which couldbe costly to shareholders such as undertaking unprofitable investments that would yieldexcessive returns to them, and unnecessarily high management compensation (Al-Malkawi, 2007). These costs are borne by shareholders, therefore shareholders of firms withexcess free cash flow would require high dividend payment instead. Agency cost may alsoarise between shareholders and bondholders, while shareholders require more dividends, bondholders require less dividends to shareholders by putting in place debt covenant toensure availability of cash for their debt repayment.

## **2.3Determinants of share prices**

Buigut et al., (2013) on their study on the relationship between capital structure and share prices in NSE assessed the effect of debt, equity and gearing ratio on share price. Using panel data pertaining to the energy sector over the period 2006 to 2011 and employing multiple regression analysis, the results indicated that debt, equity and gearing ratio were significant determinants of share prices for the sector under consideration. Further, gearing ratio and debt were found to positively affect share prices while equity negatively affected share prices. This study has borrowed one of the variables from the above study which is gearing ratio (leverage).

Olowoniyi and Ojenike (2012) investigated the determinants of stock returns of listed firms in Nigeria. Panel econometric approach was used to analyze panel data (2000 to 2009) obtained from 70 listed firms. The Fixed Effect, Random Effect and Hausman-test based on the difference between fixed and random effects estimators were conducted. 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. The findings of this research implied a need to further assess how tangibility and profitability can be improved upon to raise the level of stock return. This will ensure the correctness of several policies formulated to stabilize the financial base of firms based on either capital structure or stock return. Profitability & leverage are some of the determinants of share prices discussed in the above study that will beused in the analytical model in this study.

Baskin (1989) used a different method and examined the association between dividend policy and stock price volatility rather than returns. He added some control variables for examining the association between share price volatility and dividend yield. These control variables are earning volatility, firm's size, debt and growth. These control variables do not only have clear effect on stock price volatility but they also affect dividend yield. For instance, the earning volatility has effect on share price volatility and it affects the optimal dividend policy for corporations. Moreover, with assumption that the operating risk is constant, the level of debt might have positive effect on dividend yield. Size of firm would be expected to affect share price volatility as well. That is, the share price of large firms is more stable than those of small firms as the large firm tend to be more diversified. Furthermore, small firms have limited public information and this issue can lead their investors to react irrationally.Dividend policy is one of the variables analyzed in the above study that will be used in the analytical model adopted in this study.

Nazir et al., (2010) used 73 firms listed in Karachi Stock Exchange (KSE) as sample and studiedthe relationship between share price volatility and dividend policy for the period of 2003 to 2008. They applied fixed effect and random effect models on panel data. They reported that share pricevolatility has significant negative association with dividend yield and dividend payout. They also reported that size and leverage have non-significant negative effect on share price volatility. Suleman et al., (2011) studied the association of dividend policy with share price volatility in Pakistan. They extracted data from Karachi Stock Exchange regarding five important sectors for the period of 2005 to 2009. They used multiple regressions model for their analysis. Contrary to (Baskin, 1989)'s results, their findings showed that share price volatility has significant negative relationship with dividend yield. They also reported that share price volatility has significant negative relationship with growth.

### **2.4Empirical Evidence**

Rashid and Anisur, (2008) found that there is positive but insignificant relationship between share price volatility and dividend yield for 104 nonfinancial firms listed in the Dhaka Stock exchange during the period of 1999 - 2006. Only payout ratio and size are negative and significantly related to share price volatility. Hashemijoo et al., (2012) examined the relationship between share price volatility and dividend policy in the Malaysian stock market. The empirical results of this study showed significant negative relationship between share price volatility with two main measurements of dividend policy which are dividend yield and dividend payout. Moreover, a significant negative relationship between share price volatility and size is found. Based on findings of this study, dividend yield and size have most impact on share price volatility amongst predictor variables. Okafor et al. (2011) also studied the dividend policy and stock price volatility on the Nigerian stock market. This study applied the time-series least square regression model. The sample data of 8-year period from 1998 to 2005 was regressed for each year. Therefore, 8 regression tables were obtained. From these tables, they could get the annual effect of dividend policy on the volatility of stock price and dividend yield had a significant negative relationship with stock price volatility, whereas dividend payout ratio had a positive relationship with stock price volatility at a low significance level.

Suleman et al., (2013) studied the association of dividend policy with share price volatility in Pakistan. They extracted data from Karachi Stock Exchange regarding five important sectors for the period of 2005 to 2009, and they used multiple regressions model for their analysis. Their findings showed that share price volatility has significant positive relationship with dividend yield. They also reported that share price volatility has significant negative relationship with growth. Zakaria et al., (2012) examined the impact of firm's dividend yield (DY) and dividend payout ratio (DPR) on the share price of the Malaysian listed construction and material companies. These study covers for a period of six year (2005 to 2009). They reported that there is a significant positive relationship between the dividend payout ratio with share price volatility, and dividend yield is insignificant and negatively related to the movement of stock prices. Nazir et al., (2010) used 73 firms listed in Karachi Stock Exchange (KSE) as sample and studied the relationship between share price volatility and dividend policy for the period of 2003 to 2008. They applied fixed effect and random effect models on panel data. They reported that share price volatility has significant negative association with dividend yield and dividend payout. They also reported that size and leverage have non-significant negative effect on share price volatility.

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 earning 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-earning ratio and leverage for the period 2000 to 2009. Following the panel unit root, panel co-integration, correlation and OLS tests the results revealed that dividend, price-earning ratio and leverage are significant determinants of share prices for all sectors under

consideration where dividend and price-earning 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.

Ngunjiri (2010) examined the relationship between dividend payment policies andstock price volatility for companies quoted at the NSE. The empirical results of this study showed, both dividend policy measures (dividend yield and payout ratio) were found not to have significantimpact on the share price volatility at Nairobi Securities Exchange for the period 2004 to 2008.Mbaka (2010) did an empirical study on the applicability of dividend signaling theory at the NSE between 2003 to 2007 and established that dividend announcements by companies cause some reaction in market prices and returns depending on the information contained in the announcement. Dividend announcements had positive effects for companies with increasing dividends while it had negative reactions for companies with decreasing dividends. Companies with no change in dividends were found to have mixed reactions towards dividend announcements.

Murekefu and Ouma (2012) in their study on the relationship between dividend payout and firm performance for firms listed at the NSE done for a nine year period from 2002 to 2010 established that there exists a strong relationship between dividend policy and firm performance. They therefore concluded that dividend policy is relevant and therefore affects firm performance. They also found out that revenue and total assets are also among the factors that affect firm performance and that cash dividends was the most commonly used form of dividends among listed companies in Kenya. Limungi (2011) in his study on the ex-dividend day stock price

behaviour in the Nairobi Securities Exchange covering stock prices of twenty companies which constituted the NSE share index as at September 2010 observed that the ex-dividend day behavior of stocks that traded at the NSE during the period under study indicated unique behaviors which needed to be studied further.

Nura (2000) carried out a study on companies consistently quoted on the NSE for the period from 1997 to 2000 to establish the effect of dividend payouts on share prices. He relied on daily stock price data published by NSE to calculate excess shareholder returns and to evaluate dividend announcement for each firm in his sample. Nura's study concluded that dividend payouts had a significant effect on share prices. Bitok (2004) examined the impact of dividend policy on the value of firms listed consistently at the NSE for the period of six years from 1998 to 2003. He used secondary data from NSE, Stockbrokers as well as CMA and employed regression and correlation statistical techniques for analysis. The results of the study showed that there is significant relationship between dividend payout ratio and the value of the firm. Mulwa (2006) evaluated whether signaling efficiency of dividend changes on future profitability of companies listed on NSE. The population was constituted by 48 companies quoted at NSE covering the five year period from 1998 to 2002. Secondary data concerning actual dividend payments and earnings of the companies was analyzed using regression analysis. It was found out from the study that at least in the year of dividend payment a relationship exists. However, in the first and second year thereafter, a relationship exists but a very insignificant one.

Kiptoo (2006) studied the information content of dividends announced by companies listed on the NSE. A sample of 13 companies that met the researcher's criteria was drawn from a population of all 48 companies quoted on the bourse and regression analysis was employed on the data. The conclusion of the study was that cash dividend payment has an effect on share prices and earnings in the companies listed on the NSE. Njuru (2007) conducted a study to establish whether the behaviour of stock prices following stock dividend announcement revealed evidence of 'under reaction' anomaly at NSE. A sample of companies that declared stock bonus was taken from a population of all 48 companies that were listed during the eight year period from 1999 to 2006. A comparison-period-return approach (CPRA) was used in analyzing price movement. The comparative period taken was the 50 days period commencing 60 days before the event and ending 10 days to the event. The 10 trading days prior to the event was factored in to prevent potential distortions in prices owing to insider trading. His study concluded that there was a continuation in the positive returns following the stock dividend announcement, implying the effect of stock dividend announcement at the NSE was not fully incorporated in stock prices on the day of event.

Aduda and Chemarum (2010) studied the effect of stock splits at the NSE. A sample of nine companies that had done stock splits in a population of all companies listed on the NSE during the period from 2002 to 2008. The study used daily adjusted prices for sample stock for the event window of 101 days, consisting of 50 days before and 50 days after the stock split. The event study methodology was employed in the determination of the effects of the split. The study concluded that the market reacted positively to stock splits, as revealed by a general increase in volumes of shares traded around the stock split. This was in line with the signaling theory, which hypotheses that financial managers split shares of their companies with a view to communicate information to shareholders and potential investors in the market. Ahmed (2011) conducted a

study on the relationship between dividend per share and firm value on companies listed on the NSE. The target population was all the 55 companies listed on the NSE for the period from 2005 to 2009 and only companies that have continuously paid dividends and met researcher requirements were sampled. Secondary data was used for the study and data sourced from NSE hand book and data base. Multiple regression statistical method was used to analyze the data. He concluded that there was a positive between dividend payout and value of companies.

#### **2.5Summary of Literature Review**

Literature reviewed as shown out above reveals that many studies that have been done have only added to the already existing confusion as to the nature of the relationship between dividend policies and share prices. The studies failed to investigate the relationship between the two variables with specific reference to local listed companies since they operate in different macro and micro environments. The studies also assumed that majority of the capital markets are perfect which is not always so. It can also be observed that most of the studies were done in the developed markets and more studies needed to have been done in the emerging markets. Most of these studies also failed to determine the relationship between the variables. Lastly other factors were proved to be determinants of share prices e.g. Dividend Payout Ratio, Earnings per Share Net Assets values per share, leverage, profitability.

This research will serve to bring out a clear view of the impact of dividend payments on share prices. A study period of 8 years (2007 - 2014) is deemed adequate to support well thought out findings and capture any details that may have changed with passage of time.

#### **CHAPTER 3**

## **RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter gives a description of the research methodology used in achieving the objectives of this study. The chapter presents the research design, target population sampling procedure, data collection procedures and data analysis. The chapter will also highlight the market model that will be used in the analytical modeling of the data.

## **3.2 Research Design**

The research design used in this research was the descriptive design, specifically the event study methodology. Event study methodology is a study that is used to study significant events that might cause stocks to experience abnormal returns as outlined by Campbell, Lo and MacKinlay (1997). This methodology was useful because it studied the effects of dividend payment while making use of the normal and abnormal returns. The event window used was ten days before and ten days after the date of dividend payment.

## **3.3 Population**

Target population is defined as a complete set of individuals, cases/objects with some common observable characteristics of a particular nature distinct from other population. The population of interest in this study consisted of all the 64 firms quoted at the NSE for five years period from 2010 to 2014. This choice was informed by lack of pertinent data from companies that are not quoted on the NSE as their shares are not easily transferrable by the public. Companies that are

quoted have their shares floated to the public on NSE and the shares can be sought or bought in the NSE.

## 3.4 Data Collection

The study was based on secondary data in two sets. The first set was the daily adjusted closing stock prices for the period covered by the study and the second set was the dividend payment dates. Data was obtained from the NSE.

## 3.5 Data Analysis

This study made use of a 21-day window period starting from -10-day to +10-day relative to the dividend payment day (0-day). The study sought to determine the effect of dividend payment on stock returns and adopted the model used by Njuru (2007).

### 3.5.1 Analytical Model

The first measure was to calculate the normal or the expected returns for each stock. The daily normal stock returns were calculated as follows;

$$R = (P_{it} - P_{it-1} + D_{it})/P_{it-1})$$

Where

 $P_{it}$  is the closing price of stock *i* on day *t*.

- $P_{it-1}$  is the closing price of stock *i* on day *t*-1
- D<sub>it</sub> is the dividend payable for firm i at time t.

The second measure used was the AR which indicates the daily abnormal returns. AR was calculated as follows;

$$AR_{it} = R_{it} - E(R_{it})$$

Where;

 $R_{it}$  is the daily abnormal return for stock *i* at time *t* 

E ( $R_{it}$ ) is the expected stock return for stock *i* at time *t* which was calculated as follows;

$$E(R_{it}) = (1/21 \sum (P_{it} - P_{it-1} + D_{it})/P_{it-1})$$

The final measure used was be the CAAR which measures the investor's total return over a period starting from before and after the announcement date. CAAR was calculated as follows;

$$CAAR_t = \sum_{t=1}^{t=N} AR_t$$

Where

CAAR<sub>t</sub> is the cumulative average abnormal return

N denotes the day -10 through +10 day.

Trend analysis was conducted to determine whether there was a change before or after the dividend payment.

## **3.5.2 Test of Significance**

The last step was the use of t- statistic to determine the statistical significance of the average abnormal return of dividend paying stocks over the window period (-10 day to +10 day relative to dividend payment). The t-statistics was calculated using the standard deviation of abnormal returns. The t-test by Brown and Warner (1980) was also applied to test the statistical significance of the cumulative abnormal returns. The level of significance used was 5%.

#### **CHAPTER FOUR**

## DATA ANALYSIS

## **4.1 Introduction**

This chapter summarizes the findings and makes conclusion based on the main objective of the study which is to determine the effect of dividend payout on stock returns of firms listed at the Nairobi Securities Exchange. Fama (1970) stated that in an efficient market all publicly available information is reflected in the stock prices such that no individual can make abnormal returns by trading on the information.

## 4.2 Findings

The study made use of daily stock prices for 64 companies listed at the Nairobi Securities Exchange for the event window of 21 days consisting of 10 days before and 10 days after the event date. The analysis was done for five years on companies which are listed at the NSE. It used comparison period approach before and after dividend payment. The abnormal returns were calculated by subtracting the expected returns from the daily returns and adding the dividend paid during the period for each of the days 10 days before and after payment. To bring out the behavior, cumulative average returns were calculated by subming daily abnormal returns before and after the dividend payment. A graph of the cumulative average abnormal returns over the event window. The daily abnormal returns, average abnormal returns and the cumulative average abnormal returns for the 64 companies under study are represented in figures below for the 21 day event window.

## 4.2.1 Analysis for 2010

The abnormal and cumulative returns were calculated from the daily and expected returns. They were then plotted to bring out the trend for the year 2010. The trend analysis is as follows;





## **Source: Research Findings**

The curve for average abnormal returns fluctuates both before the dividend payment date and after, but slopes upwards before the dividend payment date and downwards after the dividend payment date. The curve for cumulative average abnormal returns for 2010 is almost flat for the 10 days before and 10 days after dividend payment but slopes slightly downwards after the dividend payment date. This shows that dividend payment has significant effect on stock returns as depicted by figure 4.1.

## 4.2.2 Analysis for 2011

The abnormal and cumulative returns were calculated from the daily and expected returns. They were then plotted to bring out the trend for the year 2011. The trend analysis is as follows;





## **Source: Research Findings**

The curve for average abnormal returns fluctuates both before the dividend payment date and after, but it slopes downwards before the dividend payment date and further downwards after the dividend payment date. The curve for cumulative average abnormal returns for 2011 is almost flat for the 10 days before and 10 days after dividend payment but slopes slightly downwards after the dividend payment date. This shows that dividend payment has significant effect on stock returns as depicted by figure 4.2.

## 4.2.3 Analysis for 2012

The abnormal and cumulative returns were calculated from the daily and expected returns. They were then plotted to bring out the trend for the year 2012. The trend analysis is as follows;



Figure 4.3 Trend of AAR and CAAR for the year 2012

## **Source: Research Findings**

The curve for average abnormal returns fluctuates both before the dividend payment date and after, but slopes further downwards immediately after dividend payment date. The curve for cumulative average abnormal returns for 2012 is almost flat for the 10 days before and 10 days after dividend payment. This shows that dividend payment has significant effect on stock returns as depicted by figure 4.3.

## 4.2.4 Analysis for 2013

The abnormal and cumulative returns were calculated from the daily and expected returns. They were then plotted to bring out the trend for the year 2013. The trend analysis is as follows;





#### **Source: Research Findings**

The curve for average abnormal returns fluctuates both before the dividend payment date and after, but is upward sloping before the dividend payment date and slopes downward immediately after dividend payment. The curve for cumulative average abnormal returns for 2013 is almost flat for the 10 days before and 10 days after dividend payment but slopes slightly downwards after the dividend payment date. This shows that dividend payment has significant effect on stock returns as depicted by figure 4.4.

## 4.2.5 Analysis for 2014

The abnormal and cumulative returns were calculated from the daily and expected returns. They were then plotted to bring out the trend for the year 2014. The trend analysis is as follows;

Figure 4.5 Trend of AAR and CAAR for the year 2014



## **Source: Research Findings**

The curve for average abnormal returns fluctuates both before the dividend payment date and after. The curve slopes slightly upwards after the dividend payment date before sloping downwards. The curve for cumulative average abnormal returns for 2014 is almost flat for the 10 days before and 10 days after dividend payment but slopes slightly downwards after the dividend payment date. This shows that dividend payment has significant effect on stock returns as depicted by figure 4.5.

## 4.2.6 Analysis for all years

The sum for the abnormal and cumulative returns for all years was calculated and then plotted to bring out the trend for the combined years. The trend analysis is as follows;





## **Source: Research Findings**

The curve for the total average abnormal returns fluctuates both before the dividend payment date and after, but slopes upwards before dividend payment date and slopes downwards after dividend payment date. The curve for total cumulative average abnormal returns is almost flat for the 10 days before and 10 days after dividend payment. This shows that dividend payment has significant effect on stock returns as depicted by figure 4.6.

## **4.3 Test of Significance**

The t-statistics for both the average abnormal returns and the cumulative average abnormal returns was calculated using the standard deviation of the average abnormal returns and the cumulative average abnormal returns respectively.

Table 4.1 Test of Significance for Average Abnormal Returns for the Year 2010

	Test Value = 0.2935								
		95% Confidence Interval of the							
					Diffe	rence			
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper			
AAR	-6.044	21	.000	2935000	394801	192199			

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for AAR in year 2010 is -6.044 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE for the year 2010.

# Table 4.2 Test of Significance for Cumulative Average Abnormal Returns for the Year2010

	Test Value = 0.2935							
		95% Confidence Interval of the						
					Diffe	rence		
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper		
CAAR	-175.266	21	.000	2935000	296993	290007		

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for CAAR in year 2010 is -175.266 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE for the year 2010.

	Test Value = 0.2935							
		95% Confidence Interval of the						
					Diffe	rence		
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper		
AAR	-5.568	21	.000	2935000	403451	183549		

## Table 4.3 Test of Significance for Average Abnormal Returns for the Year 2011

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for AAR in year 2011 is -5.568 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2011.

# Table 4.4 Test of Significance for Cumulative Average Abnormal Returns for the Year2011

	Test Value = 0.2935							
		95% Confidence Interval of the						
					Diffe	rence		
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper		
CAAR	-211.592	21	.000	2935000	296393	290607		

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for CAAR in year 2011 is -211.592 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2011.

	Test Value = 0.2935							
		95% Confidence Interval of the						
	Difference				rence			
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper		
AAR	-6.612	21	.000	2935000	386099	200901		

## Table 4.5 Test of Significance for Average Abnormal Returns for the Year 2012

## Source: Research Findings

The t-test statistics was calculated using a 5% level of significance. The t-test for AAR in year 2012 is -6.612 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2012.

# Table 4.6 Test of Significance for Cumulative Average Abnormal Returns for the Year2012

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
CAAR	-271.076	21	.000	2935000	295759	291241

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for CAAR in year 2012 is -271.076 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2012.

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
AAR	-6.343	21	.000	2935000	390021	196979

## Table 4.7 Test of Significance for Average Abnormal Returns for the Year 2013

## Source: Research Findings

The t-test statistics was calculated using a 5% level of significance. The t-test for AAR in year 2013 is -6.343 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2013.

# Table 4.8 Test of Significance for Cumulative Average Abnormal Returns for the Year2013

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
CAAR	-260.062	21	.000	2935000	295854	291146

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for CAAR in year 2013 is -260.062 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2013.

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
AAR	-2.615	21	.017	2935000	527597	059403

## Table 4.9 Test of Significance for Average Abnormal Returns for the Year 2014

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for AAR in year 2014 is -2.615 and P-Value is 0.017. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2014.

# Table 4.10 Test of Significance for Cumulative Average Abnormal Returns for the Year2014

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
CAAR	-109.842	21	.000	2935000	299074	287926

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for CAAR in year 2014 is -109.842 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in the year 2014.

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
TAAR	-2.241	21	.037	2935000	566746	020254

## Table 4.11 Test of Significance for Total Average Abnormal Returns for all the Years

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for TAAR in all years is -2.241 and P-Value is 0.037. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in all the years.

## Table 4.12 Test of Significance for Total Cumulative Average Abnormal Returns for all the

## Years

			Tes	t Value = 0.2935		
					95% Confidenc	e Interval of the
					Diffe	rence
	Т	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
TCAAR	-114.270	21	.000	2935000	298858	288142

## **Source: Research Findings**

The t-test statistics was calculated using a 5% level of significance. The t-test for TCAAR in all years is -114.270 and P-Value is 0.000. This shows that dividend payment has a statistically significant influence on share prices of firms listed at the NSE in all the years.

## **4.4 Interpretation of Findings**

The objective of the analysis was to determine whether dividend payout has an effect on share prices of firms listed at the Nairobi Securities Exchange. The average abnormal returns were calculated by subtracting the expected returns from the daily returns and adding the dividend paid during the financial year for all the companies listed at the NSE for the period 2010 to 2014. The cumulative average returns were then calculated by summing up the average abnormal returns before and after the announcement.

The graphs for the AAR and the CAAR were then plotted to bring out the trend on all the years. Finally a test of significance was conducted using the t-test for both the AAR and CAAR for all the years. From figure 4.1, the curve for AAR sloped upwards before the dividend payment date and downwards after the dividend payment date while the curve for CAARwas almost flat but sloped slightly downwards after the dividend payment date. From figure 4.2, the curve for AAR sloped downwards before the dividend payment date and further downwards after the dividend payment date while the curve for CAAR was almost flat but sloped slightly downwards after the dividend payment date. From figure 4.3, the curve for AAR sloped further downwards immediately after dividend payment date while the curve for CAAR was almost flat for the 10 days before and 10 days after dividend payment. From figure 4.4, the curve for AAR was upward sloping before the dividend payment date and sloped downward immediately after dividend payment while the curve for CAARwas almost flat but sloped slightly downwards after the dividend payment date. From figure 4.5, the curve for AAR sloped slightly upwards before the dividend payment date before sloping downwards while the curve for CAAR was almost flat but sloped slightly downwards after the dividend payment date. From figure 4.6, the curve for TAAR sloped upwards before dividend payment date and sloped downwards after dividend payment date while the curve for TCAAR was almost flat for the 10 days before and 10 days after dividend payment.

Generally, the AAR for all the years increased before the payment date but decreased after the payment date. The curve for CAAR was almost flat before dividend payment but sloped slightly downwards after the dividend payment date. This shows that share prices react negatively towards the dividend payment in all the five years. From the test of significance, dividend payment had a statistically significant influence on share prices in all the 5 years hence confirming the existence of a negative effect of dividend payout on share prices of firms listed at the NSE.

#### **CHAPTER 5**

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### **5.1 Introduction**

The purpose of this study was to determine the effect of dividend payment on share prices of firms listed on the Nairobi Securities Exchange. This chapter summarizes the findings and makes conclusion based on the objective of the study. From the data collected and analysis done the following findings, conclusion and recommendations were made based on the objective of the study.

## **5.2 Summary of Findings**

The average abnormal returns were calculated by subtracting the expected returns from the daily returns and adding the dividend paid during the period for each of the 10 days before and 10 days after dividend payment. To bring out the behaviour, cumulative average returns were also calculated by summing daily abnormal returns before and after the dividend payment. A graph of the cumulative average abnormal returns and abnormal average returns for the period was then plotted for each of the years to show the trend of abnormal returns over the event window.

From the analysis above the average abnormal returns were generally positive immediately before the dividend payment date and negative immediately after the dividend payment date. There was a general increase in the cumulative abnormal returns immediately before the dividend payment date leading to a upward sloping curve and a decrease immediately after the dividend payment date leading to a downward sloping curve. The test of significance also revealed that dividend payment has significant effect on stock returns of firms listed at the Nairobi Securities Exchange.

#### 5.3 Conclusion

In conclusion, it is obvious from the literature about the share price reaction to dividend announcements in the market that there is a diversity of opinions among researchers. Empirical review has shown that academics have favoured MM's irrelevance theory while other researchers are proponents of the signaling view. These various results may be due to the small sample used in the analysis of the effects of firm's dividend payout on the market price of its common stock. The current study overcame these limitations and build upon previous findings in this area.

The conclusion of the study is that dividend payment has a negative effect on share prices of firms listed at the Nairobi Securities Exchange. It can also be concluded that the Nairobi Securities Exchange market reacts to new information such as dividend payment.

## **5.4 Recommendations**

The study confirmed a relationship between dividend payout and share prices of firms listed at the NSE. This study therefore recommends diligence in the handling of dividend payout information among the sector players in a bid to ensure that there is inclusivity of the stock market stakeholders. Therefore, policies guiding the sharing of this information should be availed to enhance market control. The study observes that investors trading in the NSE might benefit by considering the dividend payment dates in determination of the expected increase or decrease in share prices as a result of dividend payment using the model given in this study so as to reap maximum gains from their investments.

#### **5.5 Limitations of the Study**

The study mainly concentrated on secondary data obtained from the Nairobi Securities Exchange records which may not always be reliable. This is because secondary data is prone to errors, might be out of date or may be biased. Information on all the listed companies at the Nairobi Securities exchange was not available. Some firms were also delisted within this period as others listed hence they could not be used for the analysis. The available data was only for the firms listed at the Nairobi Securities Exchange. It therefore exempted those companies that are not listed which maybe would have provided further information regarding the relationship.

#### **5.6 Suggestion for Further Studies**

The current study used secondary data to bring out the study findings. However, similar outcomes may not be observed if a study based on expert traders' opinion was done. Therefore, a research should be done based on primary data targeting the stock market experts on the effect of dividend pay-out ratio on share prices of trading firms. This would bring out the view point of experts that would combine the findings of this study and their study to give a comprehensive review of this effect.

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## **APPENDIX 1: COMPANIES LISTED AT THE NSE**

1	Eaagads Ltd
2	Kakuzi Ltd
3	Kapchorua Tea Co. Ltd
4	The Limuru Tea Co. Ltd
5	Rea Vipingo Plantations Ltd
6	Sasini Ltd
7	Williamson Tea Kenya Ltd
8	Car & General (K) Ltd
9	Marshalls (E.A.) Ltd
10	Sameer Africa Ltd
11	Barclays Bank of Kenya Ltd
12	CFC Stanbic of Kenya Holdings Ltd
13	Diamond Trust Bank Kenya Ltd
14	Equity Bank Ltd
15	Housing Finance Co.Kenya Ltd
16	I&M Holdings Ltd
17	Kenya Commercial Bank Ltd
18	National Bank of Kenya Ltd
19	NIC Bank Ltd
20	Standard Chartered Bank Kenya Ltd
21	The Co-operative Bank of Kenya Ltd
22	Express Kenya Ltd
23	Hutchings Biemer Ltd
24	Kenya Airways Ltd
25	Longhorn Kenya Ltd
26	Nation Media Group Ltd
27	Scangroup Ltd
28	Standard Group Ltd
29	TPS Eastern Africa Ltd

30	Uchumi Supermarket Ltd
31	ARM Cement Ltd
32	Bamburi Cement Ltd
33	Crown Paints Kenya Ltd
34	E.A.Cables Ltd
35	E.A.Portland Cement Co. Ltd
36	KenGen Co. Ltd
37	KenolKobil Ltd
38	Kenya Power & Lighting Co Ltd
39	Kenya Power & Lighting Ltd 4% Pref
40	Kenya Power & Lighting Ltd 7% Pref
41	Total Kenya Ltd
42	Umeme Ltd
43	British-American Investment(Kenya) Ltd
44	CIC Insurance Group Ltd
45	Jubilee Holdings Ltd
46	Kenya Re Insurance Corporation Ltd
47	Liberty Kenya Holdings Ltd
48	Pan Africa Insurance Holdings Ltd
49	Centum Investment Co Ltd
50	Olympia Capital Holdings Ltd
51	Trans-Century Ltd
52	Nairobi Securities Exchange Ltd
53	A.Baumann & Co Ltd
54	B.O.C Kenya Ltd
55	British American Tobacco Kenya Ltd
56	Carbacid Investments Ltd
57	East African Breweries Ltd
58	Eveready East Africa Ltd
59	Kenya Orchards Ltd
60	Mumias Sugar Co. Ltd

61	Unga Group Ltd
62	Safaricom Ltd
63	Flame Tree Group Holdings Ltd
64	Home Afrika Ltd