

**THE RELATIONSHIP BETWEEN FINANCIAL LEVERAGE AND DIVIDEND PAY  
OUT RATIO OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE**

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REQUIREMENTS OF THE AWARD OF THE DEGREE MASTER OF BUSINESS  
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## **DECLARATION**

The work presented in this paper is my original work and has not been presented before in the university or any other institution outside the university. The information collected from different sources is true and relevant and has not been manipulated in any way.

Signature\_\_\_\_\_

Date\_\_\_\_\_

D61/63504/2011

As the supervisor, I declare that the work hereby presented is original, true and relevant.

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## **DEDICATION**

This research project is dedicated to my family and friends for their support throughout our course.

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## **LIST OF ABBREVIATION**

<b>CBK</b>	Central of Kenya
<b>COC</b>	Cost of Capital
<b>CMA</b>	Capital Markets Authority
<b>CS</b>	Capital Structure
<b>DPS</b>	Dividends per Share
<b>EAC</b>	East African Community
<b>EPS</b>	Earnings per Share
<b>IPO</b>	Initial Public Offer
<b>NSE</b>	Nairobi Securities Exchange
<b>WACC</b>	Weighted Average Cost of Capital

## **ABSTRACT**

The dividend payout policy is one of the most debated topics within corporate finance and some academics have called the company's dividend payout policy an unsolved puzzle. Even though an extensive amount of research regarding dividends has been conducted, there is no uniform answer to the question: what are the determinants of the companies' dividend payout ratios? The purpose of the study is to determine if there is a relationship between a number of companies' selected factors and their dividend payout ratios. The study reviewed previous studies and dividend theories in order to conclude which factors that potentially could have an impact on the companies' dividend payout ratios. Based on the literature, the study tested the relationship between capital structure and dividend payout ratio. The data used in the research are secondary data collected during a time period of three years, between 2011 and 2015. The study follows a quantitative research method with a deductive approach and is based on three dividend theories: the dividend irrelevance theory, the transaction cost theory and tax clientele effect. In order to determine whether there is a relationship between the companies' selected factors and their dividend payout ratios, a regression analysis was conducted, i.e. both an Ordinary least square (OLS) and a multivariate analysis. The results indicate that some of the company's selected factors have an impact on their dividend payout ratios and there are some differences between the companies. The large companies have higher dividend payout ratios than smaller companies. There was also a negative significant relationship between financial leverage and dividend payout ratio.

# CHAPTER ONE

## INTRODUCTION

### **1.1 Background to the Study**

The decision on the leverage is important in providing the supportive funds and monitoring the creditors' involvements. The leverage comprises a mixture of equity and debt; therefore it should be planned and budgeted for future operations. If the firm incurs higher debt in the present, it will have a burden to pay higher interest in the future even though certain tax shielding can be beneficial to the firm. On the other hand, if the firm issues more equity, the increasing amount of outstanding shares imposes the pressure on the firm to pay higher dividends in the future. As a result, the firm will experience less available cash flows for maintaining its sustainable growth. Recognizing the executives' influences on the execution of policy and operation, managers of the firm have an obligation to make business decisions, not only hinge on contractual agreement of wealth maximization via profit creation, but also on personal benefits and utility, which can result in agency problem. The existence of asymmetric information may induce executives to advocate less effort to generate real free cash flows for the firm if they expect that the adverse impact on the firm is not harmful to their career. Another possibility is that executives may concentrate on the amount of dividend distributed to shareholders (Manos 2001).

Shareholders possess the right to switch their investment from stocks to bonds issued by the firm or switch their investment to other firms. A change in dividend payment can cause misunderstanding and even conflicts among partners due to the distrusts and uncertain decision on dividend policy. Theoretically, there are crucial determinants of dividend policy that simultaneously reach a possible equilibrium solution for both firm and its investors.

Financing decisions are among the most important decisions that financial managers are faced with because firms must determine the source of funds to finance their assets, operations and growth. These decisions form the firm's capital structure. The overall objective of the firm is wealth maximization therefore the firm must determine the optimal capital structure that will maximize its value (Morris, 2001).

Firms can use internal or external sources to finance their investments. Internal sources include retained earnings and depreciation, while external sources basically refer to new borrowings or the issue of stock. Thus the financing decision involves the appraisal of two choices. The first is the dividend choice; the fraction of retained earnings to be ploughed back and the fraction to be paid out as dividends. The second is the capital structure choice; the fraction of external finance to be borrowed and the fraction to be raised in the form of new equity. Several theories on capital structure have emerged over the years. These include the trade-off theory and the pecking order theory which state that firm's trade off the costs and benefits associated with debt and equity by finding an optimal capital structure after accounting for market imperfections and that firm will source for funds following a preference order of internal funds, debt and then equity (Myers & Majiluf, 1984).

### **1.1.1 Financial Leverage**

Financial leverage is the combination of debt, equity or internal funds that a firm chooses to run its operations. The decision on whether to use debt, equity or a combination of both is determined by several factors such as business risk, tax exposure, market conditions, the firm's growth rate and the cost of capital (Huang & Song, 2006). According to Modigliani and Miller (1958) under perfect markets, the value of the firm is independent of capital structure and therefore whether the firm is highly leveraged or has a lower debt component,

there is no bearing on the firm's market value. These theories paved the way for alternative theories of capital structure and empirical analyses become important value determining factors (Marietta, 2012).

According to the static trade-off theory by Myers & Majiluf (1984), optimal capital structure is reached when the tax advantage of borrowing is balanced by costs of financial distress. The optimal capital structure of the firm will therefore be obtained at the combination of debt and equity that maximizes the total value of the firm. The pecking order theory of capital structure however assumes that there is no optimal capital structure rather firms choose capital according to the preference of internal finance, debt then equity (Chen, Jung, & Chen, 2011).

### **1.1.2 Dividend Pay-out Ratio**

According to John (2013) dividend decisions are important, because they provide clues as to the sustainability of a company's dividend and the potential for it to grow. Dividend decisions refer to the percentage of a company's earnings that are paid out as dividends. However, the ratio is also sometimes expressed as a percentage of cash flow, which excludes non-cash items such as depreciation. Young and fast growing companies tend to pay out little or nothing in the way of dividends, because they need to reinvest cash in the business. Cyclical companies with volatile earnings also do not maintain a stable dividend payout, because they can't sustain a high dividend in bad times. Mature companies on the other hand who have predictable earnings and strong cash flows tend to pay out higher percentage of their profits as dividends. Investors also would like to see a stable target payout ratio which is a sign of financial discipline. Also, if a company has a dividend reinvestment plan, it can pay

out more than it earns because many investors choose to take their dividends in shares instead of cash.

There are no simple rules of thumb with regards to payout ratios but strong companies growing revenues and earnings tend to reward shareholders with dividend increases. Dividend pay-out has been a subject of debate among finance managers. 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. The empirical literature has recorded systematic variations in dividend behaviour across firms, countries, time and type of dividend (Fama and French 2001). Dividend policies vary across legal regimes in a way that is consistent with the idea that dividend payment is the outcome of effective pressure by minority shareholders to limit agency behaviour.

### **1.1.3 Financial Leverage and Dividend Pay-out Ratio**

Dividend decision is the third major financial decision (Pandey, 2008). The financial manager must decide whether the firm should distribute all profits, or retain them, or distribute a portion and retain the balance. The dividend pay-out should be determined in terms of its impact on the shareholders' value. The optimum dividend policy is one that maximizes the market value of the firm's shares. Thus, if shareholders are not indifferent to the firm's dividend pay-out, the financial manager must determine the optimum dividend pay-out policy. Most profitable companies pay cash dividends regularly. On the other hand dividends may be considered desirable from shareholders' point of view as they tend to increase their current return. Dividends, however, constitute the use of the firm's funds. Cash dividend is the commonest of dividends paid (Pandey, 2008). It is a return to the shareholders.

Companies intending to pay such dividends will be required to reserve sufficient cash in their bank accounts to facilitate this payment. It is useful for a company to prepare cash budgets to indicate which period would be best for payment of cash dividends without endangering the company's liquidity position and if this is at stake, the company should make arrangements to borrow funds to fill the gap left by the payment of cash dividends. In all, the payment of cash dividends has the impact of reducing the company's cash balance and thus total assets and the company's net worth in general.

The issue of dividend pay-out is important in that firms use dividends as a mechanism for financial signalling to the outsiders regarding the stability and growth prospects of the firm. Dividends play an important role in a firm's capital structure. Firms usually do not like to reduce or eliminate dividend payments Woolridge and Gosh (1991); hence they make announcements of dividend initiation or increases only when they are confident of keeping up with their good performance. Grounded in the agency theory, dividends are influenced by the severity of agency costs and agency costs in turn, are related to the strength of shareholder rights (Gompers, Ishii and Metrick, 2003).

Dividend policy is directly connected with the theories of capital structure. If an enterprise pays dividends, it decreases the degree of financing of equity capital from internal sources, and as a consequence may require external financing sources that are from capital invested in shares in the form of a dividend. Paying dividends is connected with the necessity of spending cash, which periodically leads to its shortage in companies following a dividend payments policy (Litzenberger and Ramaswamy 1979). Moreover it has been found that increasing the share of dividends in the net profit exerts a negative influence on stock prices (Poterba and Summers 1984).

#### **1.1.4 Nairobi Securities Exchange**

The Nairobi Securities Exchange (NSE) opened its doors in 1954, the formation of the exchange was a response to part of the Government's economic reform program aimed at developing the financial and capital market in order to support and enhance private sector initiative. The NSE is operating a unified market for both equity and debt financing. It has facilitated the raising of relatively cheaper long-term capital and in so doing complemented the financial sector product offering of short-term capital that is common place in the money market.

Over the past decade, the securities exchange has witnessed numerous changes such as automating its trade in September 2006 and in 2007 making it possible for stockbrokers to trade remotely from their offices. NSE aims at supporting trading clearing settlement of equities, debts, derivatives and other associated instruments. It's mandated to list companies on the securities exchange and enables investors to trade in securities of companies thus it's charged with the health of securities exchange. It's regulated by Capital Market Authority (Musiega et al, 2013).

Security exchange market is an organized market for buying and selling corporate and other securities. Securities are purchased and sold out as per certain well-defined rules and regulations. Security markets promote higher standards of accounting, resource management and transparency in the management of business. This is because financial markets encourage the separation of owners of capital on one hand, from managers of capital on the other. The stock exchange also improves the access to finance of different types of users by providing the flexibility for customization. The stock exchange provides investors with an efficient mechanism to liquidate their investments in securities. The very fact that investors are certain



of the possibility of selling out what they hold, as and when they want, is a major incentive for investment as it guarantees mobility of capital in the purchase of assets (www.nse.co.ke,2015).

## **1.2 Research Problem**

Leverage and dividend decisions have an impact on the value of the firm; both these decisions can be related to either the type of security, form of distribution, or make up of the ownership structure. Thus the financing decision will determine the mix of debt and equity, the relative numbers of shareholders and debt holders, and the distribution of investment proceeds between interest, dividends and capital gains. However, how investment is financed or how and to whom the proceeds are distributed should not have an impact on the investment decision itself, and thus on firm value. In short, financing and investment decisions are independent of each other and the value of the firm is determined by the latter. Thus, as financing decisions have no effect on value, they are irrelevant and should be the residue of the more important investment decisions. In practice, however, firms, managers, and investors, devote much time and resources to making and analysing financing decisions about dividends and capital structure. Moreover, when market imperfections such as taxation, transaction costs, asymmetric information and agency conflicts, are introduced, devoting time and resources to financing decisions no longer appears a futile pursuit. Subsequently, much theoretical and empirical research has aspired to clarify how the two principle financing decisions, the dividend and capital structure choices, impact on the value of firms that operate in imperfect markets.

Financial leverage corresponds to the level of debt relative to the level of equity in the company's balance sheet. Al Shabibi & Ramesh (2011) conducted an investigation in United Kingdom and they found no significant relationship between the leverage and the companies dividend payouts. This is contrary to the study made by Al-Kuwari (2009) who found a strong negative correlation between leverage and the dividend payout ratio. The issue of capital structure has been a subject of concern for many researchers over the past several years because it is linked to the firm's ability to meet the objectives of various stakeholders. Capital structure and dividend decision is a critical decision for any business organisation because of the need to maximize stakeholder value (Morris, 2001). As a result, the choice of capital structure is of utmost importance in determining the value of the firm and consequently its survival (Ogebe & Kemi, 2013). The question financial managers should however be concerned with is the amount to retain for and how much to pay as dividends so as to maximise the value of the firm.

The study aims to apply an empirical model to the data of firms from NSE. The reason for choosing the stock market is that it a developing market with various challenges. Previous empirical studies indicate that dividend policy behaviour of corporations operating in emerging markets is significantly different from the widely accepted dividend policy in developed markets (Adaoglu, 2000). In addition, dividend policy of firms in developed markets is stable while that of emerging markets is unstable. Contrary to the finding of Adaoglu (2000), Aivazian et al. (2003) find that firms in the U. S. market and emerging markets exhibit similar dividend behaviour. However, emerging market firms are more sensitive to some variables, which indicate the greater financial constraints under which they operate. Furthermore, emerging market firms seem to be affected by asset mix, which seems to be due to their greater reliance on bank debt under bank-dominated environments.

The lack of agreement by various scholars on the effect of capital structure on dividend payout ratio constitutes reason for further investigation on the area of study. In as much as capital structure is an important factor in determining the choice of dividend payout, research on the relationship remains inadequate in the Kenyan context. This forms the basis of this research. While it is important for firms to determine the best combination of debt and equity to finance their operations, they must bear in mind the amount to be retained and the amount to be paid out as dividends. This paper will seek to establish the relationship between financial leverage and dividend pay-out ratio at NSE. It will attempt to answer the research question, what is the relationship between financial leverage and dividend pay-out ratio of firms listed at NSE?

### **1.3 Research Objectives**

The objective the study is to establish the relationship between financial leverage and dividend pay-out ratio of firms listed at the NSE.

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

This study aims to contribute to the corporate finance literature, by looking at both the dividend and the capital structure choices. However, an attempt is made to make a valuable contribution by innovating on the rich existing literature in three major ways. First, in order to provide a more comprehensive view on the subject, both theoretical and empirical approaches are undertaken.

The second way by which this study attempts to innovate on existing academic work is by concentrating on emerging, as opposed to developed, markets. However, many emerging

markets are in the middle of a process of change, growth and liberalisation, which provide an interesting testing ground for Western-based corporate theory.

The third way by which innovation is sought in this study is by synthesising corporate financing theory with business group's theory. The study tends to investigate the impact of group affiliation on the dividend and capital structure decisions respectively. Thus the second and third innovations are related to each other because business groups are typical of emerging markets, and theories to explain their evolution are often related to market distortions that characterise many of these markets. Furthermore, Kenya is a suitable representative of both an emerging market and an environment where business groups have flourished.

The study is also important to researchers and scholars with interest in capital structure in that it will add value to existing research and provide recommendations for further study. It hopes to add information on the area of capital structure and dividend policies with reference to the NSE by providing quantitative data that constitutes a firm foundation for further research in the area of study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter examines literature on financial leverage and dividend pay-out ratio of firms listed on the NSE. The first section examines various theories that are relevant to this study. The second part will examine the determinants of dividend policies. The third section will discuss empirical literature by various scholars and the summary will explain the gap identified from empirical studies reviewed.

#### **2.2 Theoretical Literature Review**

Dividend policy is directly connected with the theories of capital structure. If an enterprise pays dividends, it decreases the degree of financing of equity capital from internal sources, and as a consequence may require external financing sources. The theories that are relevant to capital structure and the dividend policies include the Modigliani-Miller theorem, Transaction cost theory, tax clientele effect and the signalling theory.

##### **2.2.1 Modigliani-Miller Theory**

The Modigliani-Miller theorem of capital structure as established by Modigliani and Miller is an irrelevant approach with three propositions. The first proposition states that under certain conditions, a firm's debt-equity ratio does not affect its market value (1958). The second proposition (1961) establishes that a firm's leverage has no effect on its WACC and the third proposition (1965) establishes that firm market value is independent of its dividend policy. This theory assumes that there exists a perfect market where there is information symmetry, no taxes, no bankruptcy costs and no transaction costs. The value of the firm is therefore not

affected by its capital structure but rather dependent on the ability of the firm's assets to generate income.

Under the first proposition where there are no taxes, it is assumed that investors will value the firm based on its cash flows regardless of how the firm is financed. This is because there is no benefit of interest deductibility as a result of using debt as a source of financing. Firms would therefore be indifferent to the source of capital they choose (Chen, Jung, & Chen, 2011). The second proposition where the firm's cost of capital is independent of its financial leverage assumes that the cost of equity is a linear function of the firm's debt to equity ratio. The cost of debt is considered to be cheaper than the cost of equity because creditors have a preferential claim to the firm's income and assets compared to equity holders. As a result, the more debt a company uses the greater the cost of equity but the WACC remains the same. The third proposition where the value of the firm is independent of its capital structure concludes that given a firm's investment policy, the dividend pay-out it chooses to follow will neither affect the current price of its shares nor the total return to its shareholders (Luigi & Sorin, 2012).

In the real world, the assumptions made under the Modigliani-Miller theorem of capital structure do not exist. There exists information asymmetry, taxes, transaction costs as well as bankruptcy costs. This therefore means that the results of the Modigliani-Miller theorem of capital structure may not be practical and only exist in theory. In the presence of taxes and other market imperfections, this study seeks to establish the effect of capital structure on dividend decisions of firms listed at NSE.

### **2.2.2 Transaction Cost Theory**

Firms may incur costs in distributing dividends while investors may incur costs in collecting and reinvesting these payments. Moreover, both firms and investors may incur costs when, due to paying dividends, the firm has to raise external finance in order to meet investment needs. Indeed, the transaction costs incurred in having to resort to external financing is the cost of dividend in Bhattacharya's (1979) model. In contrast, however, it may be argued that dividend are beneficial as they save the transaction costs associated with selling stocks for consumption purposes. Either way, if there are additional transaction costs that are associated with paying or not paying dividends, then dividend policy should impact earnings expectations and hence share price and firm value.

Alternatively dividends may influence value if dividend policy has an impact on management's investment decisions. For example, managers may decide to forgo positive net present value investments because dividend payments exhausted internal finance and raising external funds involves transaction or other costs. According to Miller and Rock (1985) the cost of dividends may arise from cutting or distorting the stock for consumption purposes. Fama and French (2001) noted that the decline over time in the benefits of dividends may increase tendency to hold stocks via mutual funds. Holding via these funds reduces the transaction costs associated with selling stock to meet liquidity needs investment decision. However, more typically, the transaction cost theory of dividend retains the assumption of a given level of investment, and focuses on the costs of raising external funds when the firm increases its dividend payment. Transaction costs include flotation costs to the firm of raising additional external finance such as underwriter fees, administration costs, management time, and legal expenses. Further, when the firm pays dividend and then has to raise additional external finance, existing shareholders suffer dilution of control. Thus to

maintain control or for other reasons, existing shareholders may subscribe to the new issue, incurring trading costs such as stamp duty and stockbrokers' commissions. Ultimately all these transaction costs are reflected in the share price and firm value.

According to Rozeff (1982) dividend should only be paid when this does not result in shortage of internal funds that are required for investment. He suggested that firms that have greater dependency on external finance would maximise shareholder wealth by adopting lower payout policies. Leverage, growth potential and volatility are all factors that can increase dependency on costly external funds. High levels of leverage imply high fixed costs that the firm has to ensure it can meet. Growth potential means the firm is faced with good investment opportunities for which it requires funds. Similarly earnings volatility suggests that dependency on external finance is higher because there is less certainty regarding earnings to be generated. This implies that highly leveraged, risky or growth firms should be associated with conservative payout policies.

### **2.2.3 Tax Clientele Effect**

Tax is a cost associated with dividend payments is taxes. The tax hypothesis proposes that corporate tax on distributions and taxes on dividends in the hand of investors are important costs to be considered when deciding on a dividend policy. More specifically, the difference between tax on dividends and on capital gains should be considered as well as the difference between corporate tax on distributed and on retained earnings. For example, if corporate tax on distributions is higher than those on retained earnings, this may reduce expected earnings of a firm that pays dividends relative to a firm that does not. Similarly, if dividends in the hands of shareholders are taxed higher than capital gains, investors should evaluate expected returns on an after tax basis and share prices will vary inversely with the firm's payout level.



Indeed, the basic tax hypothesis proposes that additional taxes on dividends make capital gains a less costly way of returning wealth to shareholders. Thus, the basic tax hypothesis supports a conservative dividend policy, and proposes that if the firm wants to return cash to shareholders then this should be done through share repurchases (Fama and French, 2001).

Miller and Modigliani (1961) argued that despite the presence of taxes, tax-induced clientele effect greatly reduces the tax costs of dividends. The idea is that there may be clienteles for both high and low dividend yields depending on tax positions. Institutions, which are often tax-exempt and individuals at low tax brackets may prefer companies with high payout policies. Other investors at high tax brackets for whom the relative tax cost of dividends is substantial will prefer firms with low payout policies. Shareholders select firms whose policies suit their preferences. As there are enough firms to satisfy all, no firm can increase its value by changing its dividend policy. Moreover, by changing its dividend policy, a firm may trigger a change in clientele and this could be costly due to trading costs. Thus the Clientele effect hypothesis supports the dividend irrelevancy conclusions.

#### **2.2.4 The Signalling Theory**

The signalling hypothesis is associated with propositions put forward by Miller and Rock (1985). It is based on the idea of information asymmetries between the different participants in the market and in particular between managers and investors. Under such conditions, the costly payment of dividend is used by managers, to signal information about the firm's prospects to the market. According to John and Williams (1985) a firm may be temporarily under-valued when investors have to meet their liquidity needs. If investors sell their holdings when the firm is undervalued, then there is a wealth transfer from old to new shareholders.

The signalling hypothesis can also explain the preference for dividends over stock repurchases in spite of the tax advantages (Stephens and Weisbach, 2000) and it is consistent with Lintner (1956) observation that managers are typically reluctant to decrease dividend levels. However, unlike regular dividends, repurchases and special dividends can be used to signal prospects without long-term commitment to higher payouts. Therefore announcements of increases in regular dividends signal permanent improvements in performance, and should be interpreted as confidence in the firm on behalf of managers thus triggering a price rise. Conversely, announcements of dividend decreases should be interpreted as signalling poor performance and lack of managerial confidence and should therefore trigger drops in prices. If changes in the levels of dividend release information to the market, then firms can reduce price volatility and influence share prices by paying dividends.

### **2.3 Determinants of Dividend Decisions**

In the section below we will discuss the six company selected factors that we are going to use in order to determine the relationship with the dividend decisions.

#### **2.3.1 Free Cash Flow**

A lot of research has been conducted in order to test the relationship between the company's cash position and the dividend pay-out ratio. Anil & Kapoor (2008) stated that cash flow is a major determinant of the firm's dividend pay-out policy, since it reveals the amount of cash that is available for shareholders and creditors after all expenses has been paid.

Previous studies have concluded that free cash flow is positively related to a company's dividend pay-out ratio and this can be explained by the agency theory of free cash flow. Jensen (1896) argued that companies with high free cash flows have to pay higher dividends in order to reduce the agency conflict between managers and shareholders. Otherwise the managers may follow their own personal agenda and maximize their personal wealth or investing in negative net present value investments instead of maximizing the wealth of the shareholders.

### **2.3.2 Growth**

Another frequently used variable among previous studies is the growth rate of the company. Several studies have concluded that there exist a negative relationship between the growth rate of the company and the dividend pay-out ratio (Rozeff 1982) (Lloyd et.al 1985) (Holder et.al 1998). The majority of the previous studies have used growth in sales in order to measure the growth rate. In this research we are going to follow the same approach and we will use the growth in sales in order to measure the growth rate of the company. Although the majority of the studies have used sales to measure growth, they have used the data in different ways. Some studies have used growth opportunities in order to measure growth and they have therefore predicted the future growth in sales (Rozeff 1982).

The most commonly used explanation for the negative relationship between the dividend pay-out ratio and growth is that growing companies have to finance parts of the increased investments by retained earnings. In order to keep the same dividend pay-out levels as before the company have to increase their external financing. But since this alternative way of financing usually is relatively expensive companies, choose to decrease their dividend pay-outs (Rozeff 1982). The opposite is also true; companies with lower growth rates have

usually lower investment expenditures which contribute to a higher level of retained earnings. These companies should according to the agency theory pay higher dividends in order to reduce the agency costs between shareholders and managers. Otherwise the managers may undertake unprofitable investments and be engaged in excessive spending (Jensen 1986).

### **2.3.3 Leverage**

The financial leverage corresponds to the level of debt relative to the level of equity in the company's balance sheet. Even though leverage is one of the key indicators of a company's financial health it is not a commonly used factor in order to test the relationship with the dividend pay-out ratio. Al Shabibi & Ramesh (2011) conducted an investigation in United Kingdom and they found no significant relationship between the leverage and the companies dividend pay-outs. This is contrary to the study made by Al-Kuwari (2009) who found a strong negative correlation between leverage and the dividend pay-out ratio.

Leverage used measurement is the debt ratio which is the expressed total debt/total assets. Debt ratio reflects the broader picture of company's liabilities (Jones 1979). Debt to equity ratio indicates in which proportions the company is financed by creditors relative to shareholders.

### **2.3.4 Size**

The size of the company has been one of the most commonly used factors in previous studies. Various researchers have argued that the size of the company is one of the factors that have the largest influence on the dividend pay-out ratio (Lloyd et.al 1985). The company size is a factor when determining the relationship with dividends; large firms have to pay higher dividends in order to reduce agency costs, because large companies usually have more

diverse shareholders. Many studies have thereafter confirmed the results (Hedensted & Raaballe 2006). Other explanations to why larger companies tend to pay higher dividends have also been provided. Holder et.al (1998) state that larger firms have better access to capital markets since they usually are able to provide high collateral. This in turn makes it possible to finance the company with debt at a lower cost.

## **2.4 Empirical Literature Review**

The empirical review has related the theoretical review which has been done in the previous section so as to find the conflict and thus the gap. Darling and Baker (1957) did a research on the influence of expectation and liquidity on dividend pay-out and stated that firm's with higher levels of debt also need higher level of liquidity to allow payoffs on potential claims. They brought out a research problem which states that the increase liquidity firms will lower dividend pay-outs." Their findings brought out that lower pay-outs means firms will need less external financing, since they are retaining cash internally to strengthen liquidity. Their conclusion stated that the relationship between liquidity and dividend pay-out is negative, since the cash paid out to investors as dividends will reduce the cash on hand to the firm.

The study by Lee (1996) assesses whether there is long-term relationship between various definitions of earnings and dividends. The study utilises a bivariate time-series model of earnings and dividend obtained from annual observations on the Standard & Poor's Index for the period 1871 to 1992. The model is sufficiently general to allow various specification of target dividend to be nested within it. These restrictions are then tested, taking into account the non-stationary of the dividend and earnings series and the co integration between them. The results indicate that dividend behaviour is determined primarily by changes in permanent earnings and that the Lintner model performs better when the target pay-out ratio is a

function of permanent rather than current earnings. This is supportive of the signalling hypothesis in the sense that current earnings are not a good indicator of the long-term financial position, hence managers utilise dividends to signal this position.

Interpretation of the dividend signal is typically assessed by event studies around the dividend change announcement period as has been done by numerous papers. However, Laux, Starks and Yoon (1998) and Howe and Shen (1998) innovate by studying price reaction of rivals of firms that announce dividend changes. Both these studies use US firms and define the event window as the two days including the day of the dividend change announcement and the previous day. Both also utilise the market model, estimated post event, to generate abnormal returns.

DeAngelo and Skinner (1996) investigated whether dividend change announcements are followed by changes in earnings that are in the same direction. In order to isolate the effects of the signalling hypothesis from other effects that may influence firms' dividend policy, they selected firms experiencing a sudden earnings decline after a long period of stable growth. In particular, the sample contains 145 US firms experiencing a decline in annual earnings between 1980 and 1987 after consistent earnings growth over at least nine years. This selection method ensures that the dividend change is a signal of future rather than past changes. The selection method also implies greater need for signalling because firms that expect the current decline to be corrected in the near future have to convey this information to market participants.

Karanja (1987) did a study on dividend practices of publicly quoted companies in Kenya and found out that there are many reasons why firms pay dividends. One reason is lack of investment opportunities which promises adequate returns. Firm's cash position was the most important consideration of timing of dividends. Kale and Noe (1990) did a study on dividends, uncertainty and underwriting costs under asymmetric information and found that dividends marks as a signal of stability of the firms future cash flows thus the signalling theory discussed in the theoretical review is in tandem with these findings.

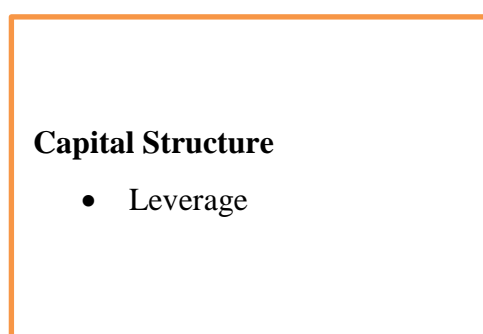
Wairimu (2002) did a study on the empirical relationship between dividend and investment decisions of firms quoted at the NSE to establish whether there exists a relationship between dividend and investment decisions since both compete for internally sourced funds and given that funds obtained by debt are very expensive and not available to all firms. Dhillon (2003) did a study on corporate ownership dividend policy and capital structure under asymmetric information and found conflicting evidence on dividend pay-out and leverage. In some industries pay-out and leverage ratios are positively related and in others it is negative.

Amidu (2007) did a study on determinants of dividend pay-out ratio in Ghana and found a positive relationship between profitability and dividend pay-out ratio. They also found a positive relationship between cash flows and dividend pay-out. This showed that when a firm has a policy to pay dividends, its profitability is influenced. Murekefu (2007) did a study on dividend pay-out ratio and firm performance; he found that dividend pay-out affects the performance of the firm. It also showed that the cash dividends are the most commonly used forms of dividends amongst listed firms in Kenya. This research also found major factors affecting dividend pay-out of listed firms are; Profitability, leverage, patterns of past dividends pay-out.

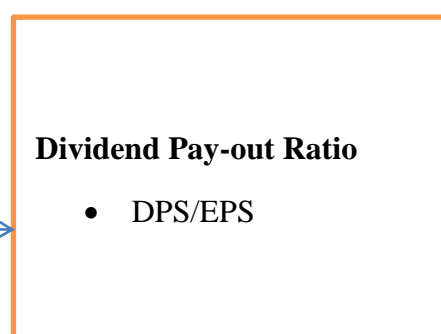
Anil and Kapoor (2008) did a study on determinants of dividend pay-out ratio and found that cash flow is an important determinant of dividend pay-out rate. Anil and Kapoor (2008) conducted a study among Indian IT-companies and the data was collected during the period 2000-2006. The authors used five company factors in order to test the relationship with the company's dividend pay-out ratio. The authors state that there is a positive but insignificant relationship between the dividend pay-out ratios and the companies' profit (EBIT/total assets) and taxes. The results indicate that profit is not of major importance when an IT-company decides to pay dividends. However the results indicate that there is a strong relationship between cash flow and dividend payments.

## 2.5. Conceptual Framework

### Independent Variable



### Dependent Variable



## 2.6 Summary of Literature Review

In summary, studies on the effect of capital structure and dividend payout ratio have produced mixed results. Al Shabibi & Ramesh (2011) conducted an investigation in United Kingdom and they found no significant relationship between the leverage and the companies dividend pay-outs. This is contrary to the study made by Al-Kuwari (2009) who found a strong negative correlation between leverage and the dividend pay-out ratio. The issue of



capital structure has been a subject of concern for many researchers over the past several years because it is linked to the firm's ability to meet the objectives of various stakeholders. Capital structure and dividend decision is a critical decision for any business organisation because of the need to maximize stakeholder value (Morris, 2001). As a result, the choice of capital structure is of utmost importance in determining the value of the firm and consequently its survival (Ogebe & Kemi, 2013).

The divergent views by different researchers create a knowledge gap in determining the effect of capital structure on dividend decisions more so in the context of the Kenyan market. The dividend decision has been found to be an important factor in determining the capital structure of the firm thus creates value when it provides a return greater than its cost of capital. As a result, this study seeks to fill the gap that exists in research by determining the relationship between financial leverage and dividend pay-out ratio of firms listed at NSE.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter examines the methodology used in carrying out the study. The aspects covered include discussions on research design, population, sampling, data collection, data analysis and test of significance. The objective of this study is to investigate the relationship between financial leverage and dividend pay-out ratio of firms listed at NSE.

#### **3.2 Research Design**

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose (Kothari, 1990). It is the conceptual structure within which research is conducted and constitutes the collection, measurement and analysis of data. The research design to be used is a descriptive research design which is used to describe the characteristics of a population or phenomenon being studied. This study seeks to determine the relationship between capital structure and dividend decisions of listed firms at NSE and will therefore employ a descriptive research design whose aim is to test associations of relationships.

#### **3.3 Population and Sampling**

A population is the total collection of measurements, items, or individuals that make up the total of all possible measurements within the scope of study. The target population for this study is all listed companies on the NSE. The population under study was all the 64 firms listed on the NSE. There will be no sampling since the target population will be covered wholly.

### **3.4 Data Collection**

This study used secondary data which were obtained from past financial reports as published by the respective companies. Data on capital structure to calculate leverage as well as data to calculate the dividend pay-out ratio was obtained from these financial statements. The period under consideration will be the years between 2011 and 2015.

### **3.5 Data Analysis**

To study the relationship between capital structure and dividend decisions; the independent variable was capital structure, the dependent variable was the dividend payout ratio and control variables will include the size of the firms. Data on capital structure and dividends will be analysed using descriptive statistics such as mean, percentages, standard deviation and variance through Statistical Package for Social Science (SPSS). To determine the relationship between capital structure and dividend decisions of firms listed on the NSE, regression analysis will be used represented by the equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y= Dividend Pay-out Ratio (Dividend per Share/Earnings per Share)

X<sub>1</sub>= Leverage (total debt to total equity).

X<sub>2</sub>= Size of the firm (Log of Total Assets), used as a control variable

### **3.6 Diagnostic Tests**

Tests for statistical significance address the probability that a relationship between variables exists and in the event they do how strong the relationship is. The objective of this study is to examine the relationship between financial leverage and dividend pay-out ratio of firms listed

at NSE. To test the level of significance, t-tests will be carried out at a desired significance level of 5%. The relationship will be rejected when  $\beta_1$  is less than 0.05 and therefore insignificant.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents data analysis of the data that was collected to establish the effect of financial leverage on dividends pay-out ratio of firms listed at the NSE. This chapter is arranged in three sections; descriptive statistics, correlation analysis and regression analysis.

#### **4.2 Descriptive Statistics**

Descriptive measures involved mean, maximum, minimum, standard error of estimate, skewness and kurtosis. Mean is a measure of central tendency used to describe the most typical value in a set of values. The standard error is a statistical term that measures the accuracy within a set of values. Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and right of the center point. Kurtosis is a measure of whether the data are peaked or flat relative to a normal distribution (Cooper and Schindler 2008).

The study determined the measures of leverage which included the debt and equity of firms listed at NSE. The dividend payout ratio was measured by looking at the ratio of DPS and EPS of firms listed at NSE.

The pertinent results are presented in Table 4.5

**Table 4.1: Descriptive Statistics of the Study Variables**

	Min	Max	Mean	Std. Dev	Skewness		Kurtosis	
Leverage	0.24	15.63	2.44	1.76	2.54	0.23	20.25	0.51
Dividend Pay-out ratio	.06	0.54	0.21	0.018	.19061	1.712	.227	4.816
Firm size	5.22	8.69	7.08	0.92	-0.16	0.21	-0.90	0.42

**Source: Author (2015)**

The descriptive statistics in table 4.1 shows that the mean leverage for the listed companies was 2.44 and the maximum and minimum were 15.64 and 0.24 respectively. The mean for the mean for the dividend payout ratio was 0.21 with a minimum and maximum of 0.06 and 0.54 respectively. The standard deviation for the dividend payout ratio was 0.018. The mean for assets was 7.08 with a minimum and maximum of 5.22 and 8.69 respectively. The standard deviation for the assets was 0.92.

#### **4.4 Correlation Analysis**

A number of statistical tests have been conducted in order to determine whether there is a relationship between the companies selected factors and the dividend payout ratio. The main statistical programs used in the research are SPSS. One of the most commonly used measurements in order to test the relationship between variables is Pearson correlation coefficient (Keller, 2005). Pearson correlation measures the strength of a linear relationship between a number variables and the requirement when using Person correlation is normality of the data. The range of possible correlation coefficients stretches between -1 and 1. Where -

1 implies that there is a perfect negative linear relationship between the variables and a correlation coefficient of 1 implies that there is a perfect positive relationship between the variables (Keller, 2005). In case the correlation coefficient is equal to zero there is no relationship between the two variables and they are independent to each other. But it rarely the case that the correlation coefficient takes one of the positions described above and the correlation is in most cases located between the extreme positions.

However, even though the correlation coefficient is widely used in these types of studies, the measurement is not perfect and it contains some limitations. One of the major drawbacks is that it only reveals how strong a linear relationship is between two variables, consequently other relationships than linear are excluded. Another drawback with the measurement is that it not indicates the casualty of the relationship. It only specifies that there is a relationship between the variables but it does not explain that one variable causes the variability in the other variable.

**Table 4.2 Correlation Analysis**

		Leverage	Dividend Payout Ratio	Firm Size
Pearson Correlation	Leverage	1.000		
	Dividend Pay-out Ratio	-0.382	1.000	
	Firm Size	0.753	0.651	1.000

From the table above all the predictor variables were shown to have a positive association between them; with the strongest (0.752) being indicated between leverage and firm size, while there was a negative association between leverage and dividend pay-out ratio (-0.382).

As cited in Wong & Hiew (2005) the correlation coefficient value (r) range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong.

#### 4.5 Regression Analysis

In order to establish the relationship between variables as well as the effect of leverage on the dividend pay-out ratio of companies listed at NSE. In order to determine whether there is a relationship between the dividend pay-out ratio and the company selected factors we have also conducted a regression analysis. The analysis is related to the correlation coefficient but it also includes additional factors. According to Keller (2005) a regression analysis is used to predict the value of one variable on the basis of other variables. There basically exist two main types of regression analysis, simple linear regression and multiple regressions. Since we have more than one independent variable included in the research the multiple regression analysis is most appropriate in our case. A multiple regression analysis may include all company selected factors (independent variables) in one single test and compare them with the dividend pay-out ratio (dependent variable). The regression equation used in the test:

**Table 4.3: Regression Analysis**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	0.714	0.562	0.392	12.4542

a Predictors: (Constant), Leverage, Firm Size

Analysis in table 4.3 shows that the coefficient of determination between the variables are very strong at R=0.714. This is an indication that the relationship between the variables i.e. leverage, dividend pay-out ratio and firm size is very strong. The percentage variation in the dependent variable being explained by the changes in the independent variables i.e. R square



equals 0.562, that is, Leverage and firm size explains 56.2% change in dividends payout ratio. While 43.8% are variations which are unexplained by the independent variables. The ANOVA test depicts a statistically significant relationship between the dependent and independent variables ( $F=11.15$ ,  $P\text{-Value} = 0.017$ ) as shown in table 4.4.

**Table 4.4 ANOVA**

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	23.246	3	475.613	12.19	0.026
	Residual	6.081	41	246.681		
	Total	29.327	44			

a Dependent Variable: Dividend Payout Ratio

b Predictors: (Constant), Leverage, Firm Size

ANOVA findings (P- value of 0.026) in table 4.5 show that there is correlation between the predictor variables (Leverage and Firm Size) and dependent variable (Dividend Payout Ratio). An F ratio is calculated which represents the variance between the groups, divided by the variance within the groups. A large F ratio indicates that there is more variability between the groups (caused by the independent variable) than there is within each group, referred to as the error term. The P value is 0.026 which is less than 0.05 significance level.

**Table 4.5: Coefficients of Regression Equation**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.352	38.516		5.205	0.026
Leverage	-0.212	0.332	0.162	0.642	0.032
Firm Size	0.925	45.520	0.903	2.950	0.001

a Dependent Variable: Dividend Payout Ratio

These are the values for the regression equation for predicting the dependent variable from the independent variable. The regression model was as follows:

$$Y = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + e$$

Where Y = the dividend payout ratio measured by DPS divided by EPS

$\alpha$  = constant which is the intercept of the regression equation

$\beta_1, \beta_2$ , = the gradient which represents the coefficients of the independent variables

$X_1$ =Leverage this measured by considering the debt capital divided by equity capital.

$X_2$ =Firm Size this is measured by considering the log of total assets.

e = error term which reflects other factors that influence dividend payout ratio

The regression model becomes:

$$Y = 2.352 - 0.212X_1 + 0.925X_2$$

Where: Constant = 2.352, shows that if leverage and firm size are rated at zero, dividend payout ratio would be 2.352.  $X_1 = -0.212$ , shows that one unit increase in leverage results in 0.212 units decrease in dividend pay-out ratio,  $X_2 = 0.925$ , shows that one unit increase in firm size measured by the log of total assets results in an increase of 0.925 in dividend payout ratio.

#### **4.6 Discussion of Findings**

The results of the study indicate that the study variables have positive and negative relationships. The study found that leverage and dividend pay-out ratio had a negative relationship at a 5% level of significance. The firm size had the highest positive relationship of 0.752 at a 5% level of significance. The relationship between firm size was also strong at 0.651( $p=.001$ ). The study found that leverage and firm size explains corporate dividend pay-out ratio and the variables can explain the corporate dividend pay-out. The findings reported a positive relationship between the two predictor variables (leverage and firm size) and the dependent variable (dividend pay-out ratio). According to Limungi (2011) observed that the ex-dividend day behaviour of stocks that traded at the NSE during the period under study indicated unique behaviour which needed to be studied further. However, generally most stocks prices on the ex-dividend date dropped.

The study results are also supported by the finding of Murekefu & Ouma (2012) in their study on the relationship between dividend pay-out and firm performance for firms listed at the NSE established that there exists a strong relationship between dividend policy and firm performance. They concluded that dividend policy is relevant and therefore affects firm performance. They also found out that earnings per share 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. Mohammed (2010) found out that for firms quoted at the NSE, the effect of Dividend Pay-out Ratio (DPOR) on firm value is strong than that of retained earnings per share (REPS) when DPS and REPS are the only two explanatory variables. She also concluded that the announcement of expected dividends don't play an important role in the determination of firm value in all industries.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of the findings presented in chapter four in accordance to the study objective. The main objective of the study was to establish the effect of leverage on dividend pay-out on the share prices of companies listed at the NSE. The chapter presents the conclusions and the recommendations to the study.

#### **5.2 Summary of Findings**

Studies have shown that there exists a relationship between the leverage and dividend pay-out ratio. The studies undertaken in Kenya on the relationship between capital structure and dividends pay-out ratio have not attempted to establish why different sectors of the stock exchange behave differently to dividends pay-out ratios. The purpose of this study is to establish the effects of capital structure on the dividend pay-out ratio of companies listed at NSE. A descriptive research design was applied in this study. The population of interest in this study will consist of all the 64 firms listed at NSE. In this study emphasis was given to secondary data which was obtained from the financial statements covering the years 2011-2015 for firms that announce dividends. In order to test the relationship between the variables the inferential tests including the regression analysis was used to determine the effect of leverage on dividend pay-out ratio. The study found that the two variables contribute 56.2% of dividend pay-out ratio i.e. unit increase in capital structure contributes to 0.562 in dividend pay-out ratio. The conclusion is that leverage had a positive significant effect on dividend pay-out ratio on companies listed at NSE.

The relationship between leverage and dividend payout ratio is significant for companies listed at NSE. The results indicate that companies with higher leverage pay lower dividend payout ratio. The result complies with previous studies who also have found a negative relationship between leverage and the dividend payout ratio (Al- Kuwari 2009). The negative relationship could be explained by the pecking order theory since it states that external financing is more costly compared to internal financing. The transaction costs for companies with high leverage are therefore higher and instead of paying dividends to shareholders, highly leverage companies choose to maintain their internal funds within the company (Al- Kuwari 2009). This is explained by the high transaction costs and highly leveraged companies therefore have to rely on retained earnings in order to meet their obligations due to the expensive external financing. Since they keep a larger proportion of their earnings within the company the dividend payout ratio decreases.

The negative relationship between leverage and the dividend payout ratio can also be connected to the agency cost of debt. Since the objective of a company is to maximize the wealth of the shareholders, the management may undertake actions that favor shareholders to the expense of the bondholders. Most bondholders are aware of this behavior and they usually undertake certain actions in order to prevent the transfer of wealth from bondholders to shareholders. One of the most common actions taken by bondholders in order to prevent the transfer of wealth is to place restrictive covenants in the bond contract (Schroeck, 2002). The covenants may state that the company is not allowed to pay a higher dividend payout ratio than the maximum level stated in the contract. As a company's leverage increases, the risk connected to the company increases and the bondholders may place more severe covenants regarding the dividend payout ratio. Consequently the dividend payout ratio decreases as a company's leverage increases.

A positive and significant relationship exists between size and the dividend payout ratio on the companies listed at NSE and the relationship is confirmed by previous studies who have found similar relationships (Al-Kuwari 2009). The relationship can be explained by the agency theory and the shareholder- management conflict (Lloyd et.al 1985). The agency problem arises between shareholders and managers because managers in large companies tend to own a small proportion of the company's stocks. Due to the low insider ownership, the managers' goals may be different from the goals of the shareholders. Since managers may be engaged in activities in order to maximize their personal wealth instead of maximizing the shareholders wealth.

The agency problem increases as the size increases since size and insider ownership usually is inversely related. Larger companies also have a larger and more widespread group of shareholders. Since the ownership of each shareholder becomes relatively small no single shareholders have incentives to supervise the managers. In order to decrease these kinds of agency costs larger companies have to pay higher dividend payout ratios compared to smaller companies. Another reason to why large companies pay higher dividends is that they have better access to external capital markets compared to smaller companies and they are able to offer higher collateral. These factors contributes to that larger companies are able to raise capital at a lower cost compared to smaller companies. Due to the lower cost of raising capital, large companies have a greater ability to pay dividends even though its current earnings are low.

### **5.3 Conclusion of the Study**

The main purpose of the study was to examine the relationship between the leverage and dividend pay-out ratio. The second purpose was to examine whether there are any differences

between firm size and dividend pay-out ratio. The research question was therefore: What is the relationship between the leverage and dividend pay-out ratio of companies listed at NSE?

In order to answer the research question, a regression analysis of 64 companies of firms listed at NSE was conducted. The study is based on a time period of 5 years and it includes the years between 2011 and 2015. The company selected factors included in the study are: firm size and leverage. The result is based on the financial reports of the quoted companies. Some of the results comply with existing dividend theories and previous studies while other results are contrary to previous studies.

The leverage and dividend pay-out ratio among the firms have a significant relationship. A positive relationship exists between the dividend pay-out ratio and firm size while there exists a negative relationship between leverage and dividend pay-out ratio. The positive relationship between dividend pay-out ratio and firm size is in accordance with the Jensen's (1986) agency theory of free cash flow.

The dividend pay-out ratios for the listed companies have a significant relation to: leverage and firm size. The firm size is the only factor that has a positive relationship to the dividend pay-out ratio and leverage has a negative relationship to the dividend payout ratio. The negative relationship to the dividend pay-out ratio indicates listed the bondholders control the amount as dividends.

Overall, the results indicate that some of the company selected factors have an impact on the dividend pay-out ratio. However, the impact of the company selected factors is different between the companies. In conclusion, it is obvious from the literature and from the results

that leverage do influence the dividends pay-out ratio of companies listed at NSE. The all the predictor variables were shown to have a significant association with the dividend pay-out ratio.

#### **5.4 Recommendations**

The study has revealed which factors that have an impact on the dividend pay-out ratio on the companies that are listed at the NSE. The results have fulfilled the purpose of the study and revealed that capital structure do have a significant relationship to dividend pay-out ratio. Both current and potential investors are provided with information regarding which factors they should consider when predicting future dividends. Since dividend policies have been described as a puzzle, it was necessary to conduct a study regarding the determinants of the company's dividend pay-out ratio. Investors who are trying to predict future dividends will therefore gain some useful information regarding which company selected factors to look for when predicting future dividends. Managers may also use the study when determining the dividend pay-out ratios since they will be given useful information regarding which factors they may consider when determining the dividend pay-outs.

The study has also contributed with theoretical knowledge since few studies had previously been conducted on the Kenyan market.. This study has therefore filled the research gap that previously existed and other academics may use the study as a benchmark case. The study have also compared the results with the existing dividends theories and revealed which theories that are applicable on stocks listed at the NSE.



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

Even though the study applied a regression models and included a significant amount of stocks in the sample, the study contains some limitations. Three selected factors were included in the research but it is possible that other factors have a greater impact on the dividend pay-out ratio than the ones included in the research. But the company selected factors included in the research are the most commonly used factors in previous studies, and they should therefore be relevant for the study.

Another limitation is that the sample contains a larger proportion of large caps compared to the total population and the medium caps are somewhat underrepresented. But the difference between the sample and the total population is small, and the difference should therefore have a negligible impact on the results. The study confirmed a relationship between dividend pay-out and share prices of firms listed at the NSE. This study therefore recommends diligence in the handling of dividend pay-out 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.

### **5.6 Suggestion for Further Study**

The results and the analysis have revealed some additional questions which need to be answered in future studies. More company selected factors than the ones included in the research should have an impact on the dividend pay-out ratio. It would therefore be interesting to conduct a similar study with different company selected factors.

The dependent variable in the study was the dividend pay-out ratio. However, a suggestion for future studies is to replace the dividend pay-out ratio and instead use the dividend yield as the dependent variable. Most previous studies have also used the dividend pay-out ratio and it would therefore be interesting to see the impact of a number of company selected factors on the dividend yield.

A time period of two years has been used in the study and for future research we recommend to use a longer time period. It would be interesting to see whether the results from this study are applicable if a study is conducted over a longer period of time or during another time period.

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## **APPENDIX I**

### **Listed Companies at NSE as at 31<sup>st</sup> December 2015**

1. A.Baumann & Co Ltd
2. ARM Cement Ltd
3. B.O.C Kenya Ltd
4. Bamburi Cement Ltd
5. Barclays Bank of Kenya Ltd
6. British American Tobacco Kenya Ltd
7. British-American Investments Co.(Kenya) Ltd
8. Car & General (K) Ltd
9. Carbacid Investments Ltd
10. Centum Investment Co Ltd
11. CFC Stanbic of Kenya Holdings Ltd
12. CIC Insurance Group Ltd
13. Crown Paints Kenya Ltd
14. Diamond Trust Bank Kenya Ltd
15. E.A.Cables Ltd
16. E.A.Portland Cement Co. Ltd
17. Eaagads Ltd
18. East African Breweries Ltd
19. Equity Bank Ltd
20. Eveready East Africa Ltd
21. Express Kenya Ltd
22. Flame Tree Group Holdings Ltd Ord 0.825

23. Home Afrika Ltd
24. Housing Finance Co.Kenya Ltd
25. Hutchings Biemer Ltd
26. I&M Holdings Ltd
27. Jubilee Holdings Ltd
28. Kakuzi Ltd
29. Kapchorua Tea Co. Ltd
30. KenGen Co. Ltd
31. KenolKobil Ltd
32. Kenya Airways Ltd
33. Kenya Commercial Bank Ltd
34. Kenya Orchards Ltd
35. Kenya Power & Lighting Co Ltd
36. Kenya Power & Lighting Ltd 4% Pref 20.00
37. Kenya Power & Lighting Ltd 7% Pref 20.00
38. Kenya Re Insurance Corporation Ltd
39. Liberty Kenya Holdings Ltd
40. Longhorn Kenya Ltd
41. Marshalls (E.A.) Ltd
42. Mumias Sugar Co. Ltd
43. Nairobi Securities Exchange Ltd Ord 4.00
44. Nation Media Group Ltd
45. National Bank of Kenya Ltd
46. NIC Bank Ltd



47. Olympia Capital Holdings Ltd
48. Pan Africa Insurance Holdings Ltd
49. Rea Vipingo Plantations Ltd
50. Safaricom Ltd
51. Sameer Africa Ltd
52. Sasini Ltd
53. Scangroup Ltd
54. Standard Chartered Bank Kenya Ltd
55. Standard Group Ltd
56. The Co-operative Bank of Kenya Ltd
57. The Limuru Tea Co. Ltd
58. Total Kenya Ltd
59. TPS Eastern Africa Ltd
60. Trans-Century Ltd
61. Uchumi Supermarket Ltd
62. Umeme Ltd
63. Unga Group Ltd
64. Williamson Tea Kenya Ltd