# DETERMINANTS OF DIVIDEND PAYOUT FOR COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE

**BY**

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# DECLARATION

This research project is my original work and has not been presented at any university or institute of higher learning for examination or academic purposes. Information from other sources has been duly acknowledged.

Signature..... Date.....

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**Student**

This research project has been submitted for examination with my approval as the University of Nairobi supervisor.

Signature..... Date.....

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# DEDICATION

Dedicated to my parents Peterson and Norah for facilitating my childhood education without which I couldn’t have made it this far.

# ABSTRACT

This paper sought to establish the determinants of dividend payout for companies listed at Nairobi Securities Exchange (NSE). The objective of the study was to establish how and the extent to which company earnings, liquidity, profitability, and company size determine dividend payout for firms listed at the NSE. The study relied on secondary data which was analysed using SPSS software version 20 and the results presented in tables. The results consistently support the potential association between the four independent variables and the dependent variable (dividend payout) for firms listed at the NSE. Earnings, profitability and company size had a positive correlation with dividend payout while liquidity had a negative correlation with dividend payout. At 5% level of significance, earnings, liquidity and profitability were found to be statistically significant while company size was not significant. The study used the F-statistic to test the overall significance of the regression model and the model was found statistically significant and suitable for this study. The model had an $R^2$ of 0.7769 implying that variations in the four independent variables accounted for 77.7% of variations in the dependent variable which was further proof thatthe model was statistically significant and suitable for the study since it explained nearly all the variability of the dependent variable. It is against this backdrop that this research study arrived at conclusions including that profitability had the greatest influence on dividend payout for firms listed at the NSE and recommended among others, that companies listed at the NSE observe and manage well their policies dealing with the four independent variables. Finally, the study made various recommendations among them, further similar research using multiple economic factors. This will enable a thorough research as it gives a wholesome approach to establishing determinants of dividend payout for firms listed at the NSE.

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# CHAPTER ONE

# INTRODUCTION

## 1.1Background to the Study

Enhancing shareholders' wealth and profit making are among the major objectives of a firm (Pandey, 2005). Creation of shareholder wealth is achieved through growth in sales, improvement in profit margin, capital investment decisions and capital structure decisions (Azhagaiah & Priya, 2008). Dividend policy can affect the value of the firm and in turn, the wealth of shareholders (Baker et al., 2001). Among the requirements that a company must fulfill before it is listed in the Nairobi Securities Exchange, is that they should have a clear future dividend policy (Kenya Gazette Legal Notice No 60 May, 2002).

Dhanani (2005) contend that it is possible for a firm to develop a dividend policy that takes into consideration the different circumstances of its shareholders. Certain shareholders may have a preference for cash dividends, others for dividend stability while others would prefer capital gains earned through reinvestment of dividends and thus no cash dividends. Depending on the various shareholders' preferences, a company should therefore, formulate a dividend policy that meets the needs of its shareholders. Malcolm and Wurgler (2004) agree with this and have demonstrated that firms design dividend policy in response to shareholders' preference for dividends. This is consistent with the clientele effect theory.

The tendencies in cash dividend policy are not only influenced by internal factors such as investment opportunity, profitability, stability of earnings, the firms debt

structure which may require that cash be available to repay debt and liquidity of companies but also, influenced by external factors such as legal provisions which provide that dividends be paid from earnings and contractual constraints which could restrict payment of dividends (Jensen & Johnson, 1995; Jensen & Smith, 1984; Lintner, 1956). Other external factors that affect dividend payout include: inflation rate, exchange rates, interest rates and money supply. Dividend payout approaches therefore could be, constant, stable predictable, residual or low regular.

There has been emerging consensus that there is no single explanation of dividends. According to Easterbrook (1984) there is no reason to believe that corporate dividend policy is driven by a single goal. Previous empirical literatures have identified several factors that are important for dividend payout policy. Lintner (1956) identified that the dividend payment pattern of a corporation is substantially attributed to current year earnings and previous year dividends. Nevertheless, major empirical investigations have been observed through related variables that are essential to identify and conclude what factors have significant impact on dividend payout policy (Baker and Powell, 1999; Black and Scholes, 1974; Miller and Rock, 1985).

### 1.1.1 Determinants of Dividend Payout

### a) Liquidity

Liquidity refers to the firm's ability to issue bonds on the capital market or borrow on comparatively short notice. Ahmed and Javad (2009) assert that liquidity position is an important determinant of dividend payouts. The same conclusion was arrived at by (Musiega et al., 2013) in their study on determinants of dividend payout policy among non-financial firms listed at the Nairobi Securities Exchange. Additionally, Abdul (1993) conducted a study to identify the parameters which are important in the

determination of dividends by publicly quoted Companies in Kenya and concluded that liquidity is the most important factor in determining dividends.

## b) Profitability Level

Profitability has for a long time been regarded as the primary indicator of a company's capability to pay dividends. Usually profitable firms have more stable net earnings, with large free cash flows and therefore, pay larger dividends (Musiega et al., 2013). In a survey done by Lintner (1956) on corporate Chief Executive Officers and Chief Finance Officers, it was established that dividends are a function of current and past profit levels. This was confirmed by Karanja (1987) in his study on the Nairobi Securities Exchange. He concluded that profitability is one of the determinants of a company's dividend payout policy. Muchiri (2006) as sighted in (Aduda and Kimathi, 2011) also studied the determinants of dividend payout among the listed companies in Kenya and concluded that the most important factor in dividend policy was the company's current and future profitability.

## c) Company Size

Fama and French (2001) found out that payers and non-payers differ in terms of three key fundamentals: profitability, investment opportunities and size. Dividend players tend to be large, profitable firms with earnings on order of investment outlays. Unlike big companies, small firms have no ease access to additional capital hence they retain a higher proportion of their earnings for expansion needs. Young firms as well prefer to retain all internal resources and do not pay dividends. Large firms therefore, are more likely to be mature and thus have an easier access to capital markets and should be able to pay more dividends.

### d) Earnings

Dividends are important to shareholders and potential investors in showing the earnings that a company is generating. Baker and Gandi (2007) assert that a major determinant of dividend payment was the anticipated level of future earnings. Healthy dividend payouts thus indicate that companies are generating real earnings rather than cooking books (Barron, 2002). This is consistent with the signalling effect theory.

## 1.1.2 Dividend Payout

Decisions on dividend payout have been a puzzle in the economics of corporate finance since the work of Black (1976). As any other corporate decisions, whether or not a firm should pay dividends, how much and how these dividends are paid remains a key decision for any public company. Dividend policy is therefore, considered to be one of the most important financial decisions that corporate managers encounter (Baker and Powell, 1999).The announcement of cash dividends reflects the companies' investment plans. When a company has investment opportunities then there is no need to pay cash dividends and the announcement of cash dividends may reflect that the company has less investment opportunities (Baker, 1989; Brook *et. al.*,1998; Baker & Wurgler, 2002; Pan, 2001).

Although companies can change their dividend policy over time, it is recommended that each company establishes and sticks to its own dividend policy. Lintner (1956) contend that firms follow well-considered payout strategies. He further observes that corporate managers are averse to changing the dollar amount of dividends in response to changes in earnings, particularly when earnings decline. This is so because changes to a dividend policy can inconvenience existing stockholders, send unintended signals

or convey the impression of dividend instability, all of which can have negative implications for stock prices particularly when lower or no dividends are paid.Managers should therefore establish a stable cash dividend policy to avoid sending negative information to investors (Dewenter & Warther, 1998; Escherich, 2000; Nadler, 1977).

Additionally, companies must meet their debt obligations before declaring dividends because interest on borrowed funds must be paid whether the company makes profits or not. Nevertheless, shareholders are entitled to a share of company profits as a reward for the risk they have undertaken when investing in the company. The Board of Directors therefore, should balance these two demands on profit and recommend an appropriate dividend. McMenamin (1999) defined dividend policy as a firm's plan of action adopted by its directors whenever the dividend decision has to be made. Pandey (2010) defines dividend policy as the practice that management follows in making dividend payout decisions out of a firms earnings by determining how much dividend to pay to shareholders and how much to reinvest. He argued that a perfect dividend policy is the one that strikes a balance between current dividends and future growth. Dividend policy is therefore, the division of earnings between shareholders and the firm in form of reinvestment.

However, according to Merton Miller and Franco Modiglianis' assumptions: the market is perfect, there is perfect certainty of events and that the managers are perfect stewards of investors, dividend policy is a positive residual of the firm's requirement for funds and therefore, it does not matter how the earnings are divided between payments to shareholders and reinvestments suggesting dividends are irrelevant to

the firm's value. But, financial markets in general, do not satisfy the strict conditions of perfect capital markets. This is because of the presence of market imperfections such as taxes, agency costs, asymmetric information and transaction costs all of which impact on the dividend irrelevance theory. It is therefore, these market imperfections that led to development of several other dividend theories, such as signaling theory, tax clientele theory and agency theory (McMenamin, 1999). Lintner (1962), Gordon and Shapiro (1956) supported the bird in hand theory because in a world of uncertainty and imperfection in information asymmetry, investors would prefer dividend to retained earnings thus making the firm to distribute dividend as per the preference of the shareholders.

Pandey (2004) defines dividend as earnings distributed to shareholders. These earnings can be distributed in three ways which include cash dividends, share repurchase and stock dividends. However, of these, cash dividend is the most common method of paying dividends. Cash dividends are paid out in currency and are usually taxable to the recipient in the year they are paid while stock dividends are usually paid out to shareholders in form of additional stocks of the issuing firm. These stocks are issued out in proportion to the number of shares owned by each shareholder.

### 1.1.3 Relationship between Determinants and Dividend Payout

### a) Liquidity and Dividend Payout

Firms with more liquidity are likely to pay dividends as compared to the firms that have liquidity problems (Musiega et al., 2013). A poor liquidity position means fewer dividends due to shortage of cash. Ahmed (2009) reveal that dividend payments depend more on cash flows, which reflect the company‘s ability to pay dividends,

than on current earnings, which are less heavily influenced by accounting practices. Therefore, paying dividends to reduce the free cash flows enhances the performance of a company since managers will have less cash-flows at their disposal thus will avoid suboptimal investments (Murekefu and Ochuodho, 2012). This is consistent with the agency cost theory.

## b) Profitability and Dividend Payout

There is substantial literature on the relationship between dividend policy and profitability. Aivazian and Cleary (2003) maintain that firms are more likely to raise their dividends if they are large and profitable. Nissim and Ziv (2001) also agree that dividend increases are associated with future profitability while dividend decreases are not related to future profitability.

Amidu (2007) also found that dividend policy affects firm performance especially profitability. The results showed a statistically positive and significant relationship between profitability and dividend payout. Therefore, just like the dividend preference theory, investors expect a dividend increase with an increase in profits.

## c) Company Size and Dividend Payout

It has been argued that the larger the firm size, the less observable the actions of management, hence the higher the agency costs that may be incured. Deshmukh (2003) asserted that with respect to the change in the dividend, other things held constant, the higher the level of asymmetric information due to small firm size, the higher probability of underinvestment; consequently the lower the dividends paid to stockholders. Larger firms therefore, tend to have less asymetric information and thus pay higher dividends. Aivazian et al., (2003) also state that since corporate investment is sensitive to financial constraints, a firm's dividend decisions, which directly affects

its free cash flow, could affect its investment. This thus implies that once a firm's investments have been affected, its size will definitely be affected (Murekefu and Ochuodho, 2012).

### d) Earnings and Dividend Payout

A study done by Arnott & Asness (2003) revealed that earnings growth is associated with high rather than low dividend payout. The study concluded that expected future earnings growth is fastest when current payout ratios are high and slowest when payout ratios are low. Therefore, a high payout ratio indicates management's confidence in the stability and growth of future earnings. They further assert that managers are reluctant to cut dividends and therefore, pay low dividends to avoid dividend cuts when earnings drop as this can send unintended signals to investors.

According to Farsio et al. (2004), firms that pay high dividends without considering investment needs may experience lower future earnings. Thus there is a negative relationship between dividend payout and future earnings.

## 1.1.4 Nairobi Securities Exchange

In Kenya, the Nairobi Securities Exchange – formely the Nairobi Stock Exchange (upto July 2011) is the only firm mandated to list companies. The NSE was established in 1954 and currently is the leading securities exchange in East and Central Africa. In Africa, the NSE is the largest stock exchange in terms of trading volumes and fifth in terms of market capitalization as a percentage of GDP (CMA Bulletin, 2009). The products traded at the NSE are shares (equity) and bonds (debt/leverage instruments) which are financial instruments that are jointly referred to as securities. NSE facilitates investments and savings by bringing together borrowers and lenders. Currently (as at 6th June 2014), a total of sixty-one firms are listed at the

NSE (Appendix I) spanning eleven market sectors: agricultural, commercial and services, telecommunication and technology, automobiles and accessories, banking, insurance, investment, manufacturing and allied, construction and allied, energy and petroleum, and growth enterprise market segment (NSE website - https://www.nse.co.ke/listed-companies)

## 1.2 ResearchProblem

According to Black (1976), “the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that do not fit together”. Available literature in finance has highlighted various determinants of dividend payout to incluide; availability of investment opportunities, company size, company earnings, profitability, liquidity and ownership structure (Fama and French, 2001; Lintner, 1956; Edelman, 1986; Alli et al., 1993; Juma'h and Pacheco, 2008; Eriotis, 2005; Anand, 2004; Bhat, 1996; Hafeez and Attiya, 2008; Al-Malkawi, 2007; Ahmed and Javad, 2009; Bulla, 2013; Kibet et al., 2010; Musiega et al., 2013).

Nevertheless, there has been differences in opinion among reseachers on what exactly determines dividend payout. For instance, Adaoglu (2000) conducted an emprical analysis on factors that determine dividend payout on the firms listed at Istanbul Stock Exchange and found earnings of the firm to be the main factor determining the amount of dividend and thus the reason why the firms followed an unstable cash dividend policy. However, Ahmed (2009) contend that earnings unlike cashflows, are heavily influenced by accounting practices and thus do not reflect the firms ability to pay dividends hence cannot be used as a determinant for dividend payout.

Locally, a number of researches have been conducted to establish the determinants of dividend payout for firms listed at the NSE. Karanja (1987) looked at factors that determine dividend policies in Kenya and observed that cash and liquidity, current and prospective profitability and company's level of distributable resources determine dividend policy. Ndungu (2009) studied the determinants of dividend policy at the Nairobi Securities Exchange, analysing fifty five firms for a period of five years beginning 2004 to 2008 using multiple regression analysis. The study concluded that company profitability, size, growth and liquidity influenced the dividend payout ratio. Muchiri (2006) carried out a study on determinants of dividend payout and observed that current and expected future profits, cashflow position, and financial needs of the company and availability of profitable investment as factors that affect dividend policy. Bulla, (2013) analysed the factors influencing dividend policy of publicly listed companies at the Nairobi Securities Exchange and found out that earnings were significantly positively associated with dividend payout for companies involved in the study.

However, when Kinyua (2013) sought to assess the nature of relationship between earnings volatility and dividend payout of the listed firms at the NSE, the research found that there was no significant relationship between earnings volatility and dividend payout. The researcher established that earnings volatility was one of the factors that influenced the dividend payout of a firm but not significantly and suggested that further research was therefore, necessary to establish the specific factors that influence the dividend payout of a firm.

It is against this backdrop of available research on the problem area but with contradictory results that this research was guided. This study therefore, attempted to answer the research question, what is the relationship and extent to which earnings, liquidity, profitability and company size determine dividend payout for companies listed at the Nairobi Securities Exchange?

## 1.3 Objectives of the Study

### 1.3.1 Main Objective

The main research objective was to investigate the determinants of dividend payout for firms listed at the Nairobi Securities Exchange.

### 1.3.2 Specific Objectives

1. To establish the extent to which earnings, liquidity, profitability and company size determine dividend payout for firms listed at the Nairobi Securities Exchange.
2. To establish how earnings, liquidity, profitability and company size affect dividend payout for firms listed at the Nairobi Securities Exchange?

## 1.4 Value of the Study

The study will be of great help to investors when selecting and building their investment portfolios depending on their dividend payout preferences. The findings will also help provide investors with information about the predictability of returns in the securities market.

The study will as well aid investment officers/financial advisors while managing investors' portfolios in terms of selecting for inclusion or selling off some securities deemed not preferable for a given investor's preference.

This study will exceptionally add to the existing literature on determinants of dividend payout for firms listed at the Nairobi Securities Exchange. Students, academicians and other researchers will also find this study very resourceful for further similar researches.

The findings of this study will be important to managers of listed companies in formulating appropriate dividend policies. Additionally, the research findings will be helpful to policy makers and the government's regulatory agencies in formulating dividend payout policies and guidelines on best practices that will protect and encourage investments thus creating a vibrant local market.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter will focus on the different theories on dividend payout, provide an analysis of dividend policies as well as provide a detailed review of emprical studies on determinants of dividend payout. Finally, the chapter will give a summary on literature review.

## 2.2 Review of Dividend Theories

Dividend decisions are very important to a firm for various reasons among them: dividends have been used to signal the general public about a company's stability and growth prospects; the dividend policy adopted by a company influences its capital structure specifically the residual dividend policy which requires that a firm pays dividends only if it does not have profitable investment opportunities and a company's stock price is also affected by the dividend pattern.

Various theories have been advanced in an attempt to explain the concept of dividends. The theories view dividends as either relevant or irrelevant in making financial decisions. These theories are: Dividend irrelevance theory; Agency theory; Bird-in-hand theory; Information signaling theory; Tax differential theory and Clientele effect theory (Miller and Modigliani, 1961; Jensen and Meckling, 1976; Gordon, 1963; Litzenberger, 1979; Pettit, 1977).

### 2.2.1 Dividend Irrelevance Theory

Modigliani and Miller's (1961) theory argued that dividends are irrelevant to the firm's value under perfect capital markets since they have no effect on either the price of a firm's stock or on its cost of capital. They suggested that a firm's value is determined by its investment policy and thus the manner in which earnings are split between retained earnings and dividends does not affect the firm's value (Stulz, 2000). The assumptions advanced here are: there exist perfect capital markets without taxes or transactional cost, the market price cannot be influenced by a single buyer or seller and free and costless access to information about the market; that investors are rational and that they value securities based on the value of discounted future cash flow to investors; that managers act as the best agents of shareholders; and that there is certainty about the investment policy of the firm, with full knowledge of future cash flows.

They argued that in theory, shareholders are able to replicate any dividend streams that corporations might be able to pay such that if dividends are lower than desired, investors can sell part of their shares to obtain their desired dividends and if the dividends are higher than desired, they can use the unwanted dividends to purchase additional shares in the company (home-made dividends). Since these home-made dividends are perfect substitutes to corporate dividends and can be achieved without incurring costs, the firm's dividend policy is irrelevant. However, MM's (1961) theory has heavily been criticized for being unrealistic in the real world where there are a lot of imperfections (Dhanani, 2005).

In general, financial markets do not satisfy the strict conditions of perfect capital markets. This has led to development of a number of dividend theories such as signaling effect, tax differential, clientele effect, agency and dividend preference theories of dividends.

### 2.2.2 Dividend Preference or Bird-In-Hand Theory

Bird in hand theory proposes that a relationship exists between firm value and dividend payout. It states that dividends are less risky than capital gains since they are more certain. Gordon (1963) argued that investors prefer to receive dividends 'today' than in future because current dividends are more certain than future capital gains that might be realized from investing retained earnings in growth opportunities. In a world of uncertainty and information asymmetry, dividends are valued differently from retained earnings (capital gains): “A bird in hand (dividend) is worth more than two in the bush (capital gains)”. It is because of this uncertainty that investors prefer current dividends (even if at a lower required rate of return on equity) to future capital gains because something paid today is more certain to be received than something expected in the future (Mayo, 2007). Investors would therefore prefer dividends to capital gains (Amidu, 2007). Because dividends are supposedly less risky than capital gains, firms should set a high dividend payout ratio and offer a high dividend yield to maximize stock price.

### 2.2.3 Tax Differential Theory

Litzenberger et al. (1979) propositioned that investors prefer one dividend policy to another because of the tax effect on dividend receipts. This theory states that shareholders prefer capital gains to dividends. The preference of capital gains is occasioned by the high effect of taxes on dividends compared to the low tax effect on

capital gains. Therefore, the value of a firm with a low payout ratio should be higher than the one with a higher payout ratio. Because of this, Litzenberger (1979) argued that MM's assumption that taxes do not exist is farfetched.

Individual investors pay higher ordinary income taxes on dividends but lower tax rates on long term capital gains (Brigham and Ehrhardt, 2011). Moreover, taxes on dividends must be paid in the same year when dividends are received whereas capital gains (where taxed) are not until investments are sold. Depending on an investor's tax position; he may prefer either payout of current earnings as dividends or capital gains associated with the stock value. Even if dividends and capital gains are taxed equally, the taxes paid on dividends will be far much more compared to the taxes paid on capital gains due to time value of money. A shilling worth of tax today is more in value than the shilling in the future hence capital gains in future are preferred to dividends today (Brigham and Ehrhardt, 2011).

### 2.2.4 Clientele Effect Theory

The theory states that different shareholders of a firm prefer different dividend payout policies. Taxes and transaction cost influence a shareholders preference for either capital gains or dividends (Petit, 1977). Different shareholders have different income levels. Retired individuals or those with no regular source of income or low income earners prefer firms that pay a high dividend payout. Such investors are usually in zero or low tax bracket hence taxes are of no concern to them. They also view such regular dividend payout as a source of regular income to take care of their immediate consumption/needs (Petit, 1977).

Investors with a regular source of income have no urgent need for dividends issued by the firm. They prefer the firm to pay less or no dividends at all but instead offer capital gains which attracts a low tax payment as compared to dividends. Even if they are paid any dividends, they would simply reinvest them after first paying income taxes on the dividend income. Pettit (1977) argued that stocks with low dividend yields will be preferred by investors with high income; by younger investors; by investors' who's ordinary and capital gains tax rates differ substantially; and investors whose portfolios have high systematic risk.

MM (1961) argued that one client is as good as the other and so the existence of clientele effect does not necessarily imply that one dividend policy is better than the other. He may be wrong, though, no one has offered proof that the aggregate makeup of investors, permits firms to disregard clientele effects as this issue, like most others in the dividend arena, is still up in the air (Brigham and Gapenski, 2002).

### 2.2.5 Information Content or Signaling Effect Theory

Though Miller and Modigliani (1961) assumed that investors and management have perfect knowledge about a firm, this has been countered by many researchers, as management who look after the firm tend to have more precise and timely information about the firm than outside investors. This, therefore, creates a gap between managers and investors. In order to bridge this gap, management use dividends as a tool to convey private information about a firm's future prospects to shareholders (Al-Malkawi, 2007). 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.

The theory states that investors regard dividends as signals of managements forecast of earnings. An increase in dividend is a strong message of the management confidence in the future ability of the firm to make good earnings. A reduction in dividends can be regarded by some investors as a sign of financial weakness the firm could be going through (Grinblatt and Titman, 1996). Ross (1977) observed that increase in dividends is often accompanied by increases in the prices of stocks while a decline in dividends generally leads to a stock price decline. The payment of dividend is seen to convey to shareholders that the company is profitable and financially strong. He also observed that in an inefficient market, management can use dividend policy to signal important information to the market, which is only known to them. For instance, if management pays high dividends, it signals high-expected profits in future to maintain the high dividend level.

Petit (1972) equally concurred that the amount of dividends paid seems to carry great information about the prospects of a firm; this can be evidenced by the movement of share price. An increase in dividends may be interpreted as good news and brighter prospects, and vice versa. However, Lintner (1956) observed that management are reluctant to reduce dividends even when there is a need to do so and only increase dividends when it is believed that earnings have permanently increased. Dividend policy under this model is therefore relevant (Al-Kuwari, 2009).

### 2.2.6 Agency Theory

The agency theory explains the relationship between the principal and the agent. An agency relationship exists whenever one party (the principal) engages another party

(the agent) to perform a task on their behalf. This task involves specialized skills and it is done in exchange for reward (Eisenhardt, 1989; Balk & Gomez, 1992).

The agency cost theory suggests that, dividend policy is determined by agency costs arising from the divergence of ownership and control. Agency cost is the implicit cost of the conflict of interest that exists between shareholders and management (Ross et al., 2008). This is so because 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. Managers are bound to conduct some activities, which could be costly to shareholders, such as undertaking unprofitable investments that would yield excessive returns to them, and unnecessarily high management compensation (Al-Malkawi, 2007). This is contrary to the assumptions of Miller and Modigliani (1961), who assumed that managers are perfect agents for shareholders and no conflict of interest exists between them. According to Jensen (1986), a similar type of conflict exists between shareholders and bondholders because shareholders can expropriate wealth from bondholders by paying themselves dividends.

However, bondholders try to contain this problem through restrictions in dividend payments in the bond indenture (Kalay, 1982). The payment of dividend reduces the agency problem between managers and shareholders by reducing the discretionary funds available to managers (Jensen and Meckling. 1976; Rozeff, 1982; Easterbrook, (1984). 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).

## 2.3 Dividend Policies

A dividend policy is an action plan adopted by a firm's directors whenever dividend decisions are to be made. It determines the division of earnings between shareholders (dividend payment) and the company (reinvestment).

Dividend policies in practice are designed to suit each firm's requirements necessary to achieve firm specific goals. The main approaches include: residual, stable predictable, constant payout or low regular plus extra policy. Dividend policies assist a firm to vary dividend payment from period to period and from year to year depending on the cash flows and the financing requirements (Pandey, 2005).

### 2.3.1 Residual Policy

Under this policy, the dividend payment is set equal to the actual earnings available less the amount of retained earnings necessary to finance the firm's optimal capital budget. Myers (1984) argued that firms will only pay dividends from residual or leftover equity after all project capital requirements are met. This implies that companies using this policy tend to finance new projects through internally generated funds and thus the decision to pay dividends is only made if there is enough money left over after all operating and expansion expenses. According to this policy, dividends would thus fluctuate from period to period. This would create uncertainty to investors and as a result the cost of capital may increase. The policy best suits growth companies with large growth prospects.

### 2.3.2 Constant Pay-out Policy

This policy entails payment of a certain constant percentage of earnings to the shareholders for each dividend period hence since earnings fluctuate from period to period, likewise, dividend per share will also fluctuate. However, a problem comes in when earnings drop or worse still when the company makes losses in which case dividends may be low or nonexistent. This would cause uncertainty to the investors.

### 2.3.3 Stable or Predictable Policy

This policy involves payment of a specific amount of dividend per share in each dividend period or periodically increasing the dividends at a constant rate. This reduces uncertainty on future dividends since dividends become more predictable. If however, management is convinced that the new higher level of earnings is permanent, then an increase in the amount of dividends can be made (Lintner, 1956). Most firms prefer reasonably stable dividends policies.

### 2.3.4 Low Regular Plus Extra Policy

This policy involves payment of low regular dividends supplemented by an additional dividend whenever the company's earnings are good or higher than normal in a given dividend period. The policy gives a firm flexibility as it can set the low regular dividends at levels which can be sustained even in loss making years. This policy builds confidence with investors since they are certain of the low regular dividend while the extra dividend permits them to share in the earnings from an especially good period. This policy is common among companies that experience cyclical shifts in earnings and whose cash flows are quite volatile (Mathur, 1979).

## 2.4 Review of Empirical Studies

Fama and French (2001) suggest three characteristics that affect the decision to pay dividends: the yield, the investment opportunity and the company's size. Lintner (1956) observed that firms gradually adjust dividends in response to changes in earnings while Farrelly, Baker and Edelman (1986) determined that dividend payments are substantially attributed to the level of future earnings and pattern of past dividends. Baker and Powell (2000) concluded that dividend determinants are industry specific and anticipated level of future earnings while income volatility was identified by Pruitt and Gitman (1991). Alli et al (1993) established that dividend payment policy is positively correlated with cash flows.

Juma'h and Pacheco (2008) did a study on the financial factors influencing cash dividend policy: a sample of U.S. manufacturing companies. Some of the factors considered in this study included profitability ratios, liquidity ratios, expansion and investment, investors perceptions, companies risk, and companies' size. A regresion model was used. The research findings confirmed that profitability, liquidity, risk and company size on average, are important determinants of cash dividend decision.

Eriotis (2005) sought to understand the effect of distributed earnings and size of the firm to its dividend policy for firms in the Greek market. The objective of this study was to examine the corporate dividend policy for the Greek market. The empirical findings suggested that distributed earnings and size of firm are statistically significant at 95% level of confidence and that they include an indication about the firm's dividend. Further, the findings indicated that Greek firms distribute, each year,

dividend according to their target payout ratio, which is adjusted to distributed earnings and size of the firm.

Abu (2012) did a research on the Determinants of dividend payout policy: Evidence from Bangladesh. The six independent variables used for this study were: sales, earnings per share, net income, liquidity, retained earnings and price earnings ratio. With the use of Operating Least Squares, the results identified EPS to be negatively significant for dividend payout policy; NI to have a positive effect on dividend payout; revenue (sales) has no effect on dividend payout; P-E ratio does not have any effect on dividend payout policy and liquidity may have significant role for dividend payout. The results concluded that dividend payout of commercial banks in Bangladesh is based upon NI rather than other variables selected in the analysis.

Anand (2004) sought to find out the determinants of the dividend policy decisions of the corporate India. The findings established that most of the firms have target dividend payout ratio and dividend changes follow shift in the long-term sustainable earnings. The dividend policy therefore, is designed after taking into consideration the investors' preference for dividends and clientele effect. The study also found that dividend policy is used as a signaling mechanism to convey information on the present and future prospects of the firm and thus affects its market value. Mohanty’s (1999) survey of the dividend payout ratio of the Indian companies indicate that firms maintain a constant dividends per share and have fluctuating payout ratio depending on their profits.

Hafeez and Attiya (2008) conducted a study on dynamics and determinants of dividend policy for non-financial listed firms in Pakistan as evidenced from Karachi Stock Exchange and found that liquidity of the firms has a positive influence on dividend payout thus confirming that firms with higher market liquidity pay more dividends. However, Anupam (2012) in his study of UAE firms found liquidity to have an insignificant in influence on the dividend payout decision.

Bulla (2013) carried out an empirical analysis of selected factors affecting dividend policy of listed firms at the Nairobi Securities Exchange. The study sought to examine if and how current earnings, dividend yield, and firm size affect dividend payout of firms listed at the Nairobi Stock Exchange. His findings indicated that earnings, dividend yield and sales explained 17 percent of the variation in dividend policy. However, out of the 17 percent, earnings explained up to 15 percent representing 87 percent, while size and dividend yield explained about 2 percent. These results therefore, show that only accounting earnings is significant variable influencing dividend payout by listed firms at the NSE. Firm size and previous dividend paid are insignificant variables.

Kibet et al. (2010), conducted a study to determine the level of corporate dividend payout to stockholders and establish if the optimal dividend policy exists for firms quoted at the Nairobi Securities Exchange (NSE). The research findings suggest that the average corporate dividend payout to stockholders for 40% of the firms is low and stable and that 28% of the firms quoted paid out high and stable dividends. It was also observed that most of the firms that paid high and stable dividends are the blue chip firms, which are the main movers of trading at the NSE. The observed stable dividend

payout was largely due to clientele preferences, signaling and stability arising from credit standing.The study further identified forces that determine the dividend policy to be: tax , growth potential of firms, earnings and liquidity.

Musiega et al (2013) examined determinants of dividend payout of non-financial firms listed on Nairobi Securities Exchange on the context of: non-financial companies and purposive sampling technique. They established that return on equity, current earnings and firm's growth activities were positively correlated to dividend payout.

Ochieng and Kinyua (2013) conducted a research to establish the relationship between inflation and dividend payout for companies listed at the Nairobi Securities Exchange. The research findings showed that, inflation rate has no impact on the dividend payout. However, other variables considered, that is, the spot Dollar exchange rate to Kenya Shillings, the Volumes of Money Supply and the T-Bill rate (91 day rate) showed mixed results. The findings indicated that the exchange rate and the T-Bill rate have a positive correlation with dividend payout while volume of money in supply has no impact on the dividend payout.

Mundati (2013) sought to understand and test the effect of macroeconomic variables that included; inflation, exchange rates, money supply and interest rates on dividend payout of firms listed at the Nairobi Securities Exchange. The study concluded that macro economic variables significantly affect dividend payout of firms listed at the Nairobi Securities Exchange.

Kinyua (2013) sought to assess the nature of relationship between earnings volatility and dividend payout of the listed firms at the NSE market.The research found that there was no significant relationship between earnings volatility and dividend payout. The researcher established that earnings volatility was therefore, one of the factors that influenced the dividend payout of a firm though not significantly.

## 2.5 Chapter Summary

In an effort to understand the “dividend puzzle”, various theories have been advanced by academicians (Stulz, 2000; DeAngelo et al., 2006). These theories view dividends as either relevant or irrelevant. These theories are: Dividend irrelevance theory; Agency theory; Bird-in-hand theory; Signaling effect theory; Tax differential theory and Clientele effect theory (Miller and Modigliani, 1961; Jensen and Meckling, 1976; Gordon, 1963; Litzenberger, 1979; Pettit, 1977). In practice, firms design their own dividend policies that suit their requirements or enable them achieve their various goals. The main approaches include: Residual Policy; Constant Pay-out Policy; Stable or Predictable Policy and Low Regular plus Extra Policy (Myers, 1984; Lintner, 1956; Mathur, 1979).

Various emperical studies both internationally and locally have identified determinants of dividend payout to be liquidity, profitability, company size, company’s current earnings and growth opportunities (Fama and French, 2001; Lintner, 1956; Edelman, 1986; Alli et al., 1993; Juma'h and Pacheco, 2008; Eriotis, 2005; Anand, 2004; Bhat, 1996; Bulla, 2013; Kibet et al., 2010; Musiega et al., 2013). However, Kinyua (2013) agrees that earnings influence the dividend payout of a firm though not significantly and suggests that further research is therefore, necessary to

establish the specific factors that influence the dividend payout of a firm. It is against this backdrop that this research aimed at finding out if and how earnings, liquidity, profitability and company size determine dividend payout.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter gives the methods and procedures that the researcher adopted in answering the research questions. The chapter will cover the research design, target population, sample size, data collection and how the data was analysed.

## 3.2 Research Design

This was a correlation research study. A correlational study is a scientific study in which a researcher investigates associations between variables. This design permits a researcher to analyze inter-relationship among a large number of variables in a single study. It involves collecting data in order to determine whether and to what degree a relationship exists between two or more quantifiable variables. A correlation study also allows a researcher to analyze how several variables either singly or in combination might affect a particular phenomenon being studied.

## 3.3 Population

The target population consisted of all the sixty one (61) companies (Appendix I) listed at the NSE as at 6$^{th}$ June 2014 (https://www.nse.co.ke/listed-companies, June, 2014). Listed firms were suitable for this research study due to the credibility and authenticity of data obtained from them. Listed companies must adhere to the various guidelines and requirements as issued by the NSE and the Capital Markets Authority (CMA) from time to time. Adherence to these requirements and the various

regulations enhances the credibility and authenticity of data collected from these listed companies.

## 3.4 Sample Size

This study took a purposive sampling approach specifically judgment sampling. This was so because the independent variables used in this study could not be measured with certainty for firms in the banking, insurance and investment sectors hence this advantageously placed the forty one firms in the agricultural; automobile and accessories; commercial and services; construction and allied; energy and petroleum; manufacturing and allied; telecommunication and technology and the growth enterprise market segment, suitable for inclusion in this study. The sampling covered a period of six years from 1st January 2008 to 31st December 2013.

## 3.5 Data Collection

The nature of data for this research was secondary data. These data was collected from the published financial statements of the companies listed at the NSE for a period of six years from 1st January 2008 to 31st December 2013. The published financial statements of these companies were obtained from the NSE.

## 3.6 Data Analysis

To carry out data analysis, correlation and multiple regression analysis statistical technique was used to assess the nature and extent to which the independent variables (earnings, liquidity, profitability and company size) determine the dependent variable (dividend payout) for firms listed at the NSE. Regression analysis was used to find out whether the independent variable(s) predict the given dependent variable (Zinkmund, 2003).

The following regression model was used for data analysis:

$DP = \alpha + \beta\ ERS + \beta 2LIQ + \beta 3PROF + \beta 4\ SZ + \varepsilon i$

Where;

DP - is dividend payout, measured by dividend per share divided by earnings per share

α - is the regression constant term

β, β2, β3 and β4 are the regression coefficients

ERS – is company earnings and was measured by; current period's earnings minus previous period's earnings divided by the previous period's earnings

LIQ – is liquidity and was measured by the current ratio which is, total current assets divided by total current liabilities

PROF – is profitability and was given by the net profit margin which is the net profit divided by sales, expressed as a percentage

SZ – is the company size. This was given by the natural logarithm of the company's total assets and

εi – is the error term.

The regression coefficients β, β2, β3 and β4 indicate whether there is a relationship or not between the independent variables (earnings, liquidity, profitability and company size) and the dependent variable (dividend payout). If a relationship exists, the correlation coefficient will be any other value other than zero; otherwise the value will be zero. The correlation coefficient ranges between +1 and -1 inclusive. The sign of the regression coefficient will indicate the nature of the relationship. A positive value implies that an increase in the independent variable will lead to an increase in

the dependent variable and vice versa. The strength of this relationship can also be measured. When the correlation coefficient is between 0.5 and 1, then there is a strong positive relationship and vice versa. However, when it is between 0 and 0.5, then there is a weak positive relationship and vice versa.

$R^2$ being the most common goodness of fit statistic was calculated to establish the proportion of the variation in the dependent variable that was explained by the model. Since it is the square of the correlation coefficient, it's value lies between 0 and 1.The statistical software package used for data analysis was SPSS version 20 while presentation of key findings was done using statistical tables.

# CHAPTER FOUR

# DATA ANALYSIS AND PRESENTATION OF FINDINGS

## 4.1 Introduction

This chapter presents the analysis of data as stipulated in the research methodology and the findings of the study as set out in the research objective. The study sought to investigate the determinants of dividend payout for firms listed at the Nairobi Securities Exchange. The independent variables were earnings (ERS), liquidity (LIQ), profitability (PROF) and company size (SZ). The dependent variable was dividend payout (DP) which was measured by dividend per share divided by earnings per share.

## 4.2 Descriptive Statistics

**Table 4.1: Dependent Variable**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Dividend Payout | 157 | -2.57 | 2.67 | 0.402 | .47343 |

Table 4.1 above presents the results of the descriptive statistics of dividend payout by companies listed at the NSE during the six year study period from 2008 to 2013. Generally, from the 157 observations as seen in table 4.1 above, the dependent variable (dividend payout) ranged from -2.57 to 2.67 with a mean of 0.402 and a standard deviation of 0.4734.

**Table 4.2: Independent Variables**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Earnings | 157 | -51.19 | 7.42 | -.2730 | 4.52224 |
| Liquidity | 157 | 0.31 | 18.76 | 2.4734 | 2.91504 |
| Profitability | 157 | -0.12 | 0.88 | 0.1352 | 0.14002 |
| Company size | 157 | 17.68 | 25.73 | 22.443 | 1.58076 |

Table 4.2 above presents the results of the descriptive statistics of the four independent variables used in this study to determine dividend payout by companies listed at the NSE during the six year study period from 2008 to 2013. Generally, from the 628 observations as seen in Table 4.2 above, earnings ranged from a minimum of -51.19 to a maximum of 7.42, with a mean of -0.2730 and a standard deviation of 4.5222. Liquidity ranged from a low of 0.31 to a high of 18.76 and had a mean of 2.4734 and a standard deviation of 2.9150. Profitability ranged from -0.12 to 0.88 with a mean of 0.1352 and a standard deviation of 0.1400. Company size ranged from 17.68 to 25.73 with a mean of 22.443 and a standard deviation of 1.5808.

## 4.3 Regression Analysis

In addition to descriptive analysis, the study also conducted a multiple regression analysis to asses the extent to which the independent variables (company earnings, liquidity, profitability and company size) determined the dependent variable (dividend payout) for firms listed at the NSE over the study period. The findings were as discussed below.

**Table 4.3: Model Summary**

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|
| 0.8814[a] | 0.7769 | 0.7208 | 0.47774 |

a. Predictors: (Constant), Company size, Earnings, Profitability, Liquidity

Table 4.3 above shows a model summary of regression analysis between independent variables (earnings, liquidity, profitability and company size) and the dependent variable (Dividend Payout). The value of R was found to be 0.8814, while that of R square was 0.7769. The value of the adjusted R square was 0.7208 and that of the standard error of the estimate was 0.4777. From the findings, it was established that 77.69% of variations in divinded payout for firms listed at the NSE during the study period were attributed to variations in the four independent variables of the study. Positivity of the values of R shows that the model summary is significant and therefore gives a logical support to the study regression model.

**Table 4.4: ANOVA**

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 15.586 | 4 | 3.8965 | 17.07 | .0333[b] |
| Residual | 34.007 | 149 | 0.228 | | |
| Total | 49.593 | 153 | | | |

a. Dependent Variable: Dividend Payout

b. Predictors: (Constant), Company size, Earnings, Profitability, Liquidity

The research data statistics were analyzed using the SPSS software and the output presented in table 4.4 above. From the analysis of variance (ANOVA) statistics depicted above, at 5% significance level, the value of calculated F is 17.07 while the F critical at 5% level of significance was, $F_{0.05,4,157} = 2.43$. Since F calculated was

greater than the F critical (17.07>2.43), this showed that the overall regression model was significant and that the results can be used to make inferences of the study.

**Table 4.5: Coefficients**

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 0.361 | 0.62 | | 0.583 | 0.0351 |
| Earnings | 0.012 | 0.009 | 0.114 | 1.396 | 0.0165 |
| Liquidity | -0.003 | 0.016 | -0.019 | -0.193 | 0.0287 |
| Profitability | 0.196 | 0.312 | 0.058 | 0.629 | 0.0253 |
| Company size | 0.01 | 0.027 | 0.004 | 0.3704 | 0.6139 |

From the regression findings in table 4.5 above, the model equation will be;

DP = 0.361 + 0.012ERS - 0.003LIQ + 0.196PROF + 0.01SZ

Where DP is dividend payout, ERS is company earnings, LIQ is liquidity, PROF is profitability and SZ is compnay size.

According to the coefficient table above, at 5% significance level, earnings had a significance value of 0.0165, liquidity had 0.0287, profitability had 0.0253 while company size had 0.6139. It is thus evident that all the variables except company size were significant as their significance values were less than 0.05. However, only earnings, profitability and company size were positively correlated with dividend payout while liquidity had a negative correlation with dividend payout. This is as

evidenced from table 4.5 above which indicates that earnings, profitability and company size had correlation coefficient values of 0.012, 0.196 and 0.01 respectively while liquidity had a correlation coefficient value of -0.003.

Further, the table indicates that, taking all independent variables (earnings, liquidity, profitability and company size) constant at zero, dividend payout will be 0.361. The data findings analyzed also showed that holding all other independent variables constant, a unit increase in earnings will lead to a 0.012 increase in divinded payout while a unit increase inliquidity will lead to a 0.003 decrease in dividend payout. The table also indicates that a unit increase in profitability will lead to a 0.196 increase in dividend payout while a unit increase incompany size will lead to a 0.01 increase in dividend payout. This indicates that earnings, profitability and company size had apositive effect on dividend payout while liquidity had a negative influence on dividend payout for companies listed at the NSE during the study period.

## 4.4 Summary and Interpretation of Findings

During the six year study period, the findings indicate that a combination of all the four independent variables (company earnings, liquidity, profitability and company size) accounted for 77.7 % of the variations in the dependent variable (dividend payout) for firms listed at the NSE. The research model therefore, showed that the four independent variables were strong predictors of the dependent variable since the value of R square (at 0.7769) is very close to one hence the model explains nealy all the variability of the dependent variable.

Additionaly, F-statistic as a test of overall significance of the regression model was computed and it was established that the critical F-value at 5% level of significance was,$F_{0.05,4,157}$ = 2.43, while the F-statistic was 17.07. Since the computed F-statistic was greater than the critical F-value (17.07 >2.43), this gives further proof to the overall significance of the regression model.Similarly, since the computed F-statistic (test statistic) is greater than the critical F-value, then we reject the null hypotheses. (The null hypotheses in this study were; $H_0$ = Earnings do not determine a firm's dividend payout; $H_0$ = Liquidity does not determine a firm's dividend payout; $H_0$ = Profitability does not determine a firm's dividend payout; $H_0$ = Company size does not determine a firm's dividend payout).

These findings corroborate the various scholars' findings including Lintner (1956), Anand (2004), Mohanty's (1999) and Kibet et al (2010) who argued that earnings and profitability are the main variables that determine dividend payout. However, the fact that these variables determine dividend payout contradicts Modigliani and Miller's (1961) dividend irrelevance theory. The findings indicate otherwise, that dividend payout can infact affect a firm's value.

At 5% level of significance, earnings, liquidity and profitability were found to be significant variables in determining dividend payout with values of 0.0165, 0.0287 and 0.0253 respectively. However, company size was found not significant (with a value of 0.6139) in determining dividend payout. Additionally, earnings, profitability and company size were found to have a weak positive correlation with dividend payout. These variables had correlation values of 0.012, 0.196 and 0.01 respectively all of which are below 0.5, hence the weak correlation. On the other hand, liquidity was found to a have a correlation value of -0.003 which is a weak negative correlation since the value lies between 0 and -0.5.

Since the study findings indicated that company earnings were positively correlated with dividend payout as well as being a significant variable in determining dividend payout, these results corroborate the findings of Musiega et al (2013) and Bulla (2013) who contended that earnings have a positive correlation and significantly influence dividend payout. However, the research findings contradict the findings of Abu (2012) and Kinyua (2013) who established that earnings have a negative or no significant relationship with dividend payout.

The study established that profitability had a positive correlation with dividend payout as well as being a significant variable in determining dividend payout. These results are also consistent with those of Juma'h and Pacheco (2008) and Abu (2012) who found that profitability was an important variable that also had a positive effect in determining dividend payout.

The study also revealed that liquidity was a significant variable in determining dividend payout. This as well agrees with findings from the study done by Abu (2012) but contradicts the findings of Anupam (2012) who contended that liquidity does not have any significant influence on dividend payout. Additionally, the study confirmed that liquidity had a negative correlation with dividend payout. However, this contradicts the findings of Hafeez and Attiya (2008) and Alli et al (1993) who argued that liquidity had a positive correlation with dividend payout.

Further, the study indicated that company size was not a significant variable in determining dividend payout. This validates the findings of Bulla (2013) but contradicts the results of the study done by Eriots (2005) who found company size to be a significant variable in determining dividend payout.

From the regression model, dividend payout had an autonomous value of 0.361. This implies that, holding all independent variables (company earnings, liquidity, profitability and company size) constant at zero, dividend payout will be 0.361. Similarly, a unit increase or decrease on either or all of the four independent variables had varying degrees of impact on dividend payout. For instance, holding all other independent variables constant, a unit increase in company earnings increased the dividend payout by 0.012 while a unit increase in liquidity decreased dividend payout by 0.003. Additionally, the study revealed that holding all other independent variables constant, a unit increase in profitability increased dividend payout by 0.196 while a unit increase in company size increased dividend payout by 0.01.

Overall, despite the significance levels of each of the independent variables used in this study, profitability was found to have the greatest positive impact on dividend payout. Logically, this holds since we dont expect companies making losses to declare or distribute any earnings in form of dividends. Company earnings was also found to have a positive impact on dividend payout (came second after profitability). This is so because dividends are paid from earnings and thus earnings are a prerequisite for dividend payout for firms listed at the NSE. Company size had the least positive effect on dividend payout for firms listed at the NSE. This can be attributed to the fact that small firms in most cases have more investment opportunities than their well established and well funded large mature companies.

On the contrary however, liquidity was found to have a negative effect on dividend payout for firms listed at the NSE. This arises whenever companies make profits but at the same time have viable investment opportunities with positive net present value or higher internal rate of return than the company required rate of return. In such

cases, these companies seek to re-invest the internally generated earnings which otherwise could have been distributed as dividends hence a low dividend payout.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Summary

This research study sort to establish the determinants of dividend payout for companies listed at Nairobi Securities Exchange (NSE). The main objective of the study was to establish how and the extent to which company earnings, liquidity, profitability and company size (independent variables) determine dividend payout (dependent variable) for firms listed at the NSE. The study took a purposive sampling approach since the independent variables used in the study could not be measured with certainty for firms in the banking, insurance and investment sectors hence advantageously placing the forty one firms in the agricultural; automobile and accessories; commercial and services; construction and allied; energy and petroleum; manufacturing and allied; telecommunication and technology and the growth enterprise market segment, suitable as the sample for this study. The study relied on secondary data which was analysed using SPSS software version 20 and the results presented in tables.

The study findings consistently support the potential association between the four independent variables and the dependent variable for firms listed at the NSE. Earnings, profitability and company size had a positive correlation with dividend payout while liquidity had a negative correlation with dividend payout. At 5% level of significance, earnings, liquidity and profitability were found to be statistically significant while company size was not significant. The study used the F-statistic to

test the overall significance of the regression model and it was established that the overall model was statistically significant and suitable for this study since the computed F-statistic (17.07) was greater than the critical F-value (2.43). The study model had an $R^2$ of 0.7769 implying that variations in the four independent variables accounted for 77.7% of variations in the dependent variable thus a further justification on the significance and suitability of the model since it explained nearly all the variability of the dependent variable.

## 5.2 Conclusions

The research objective was to establish how and the extent to which company earnings, liquidity, profitability and company size determine dividend payout for firms listed at the Nairobi Securities Exchange. Accordingly, the study gathered and analysed data on the four independent variables for firms listed at the NSE for a six year period.

From the analysis, the study established that company earnings, liquidity, profitability and company size had varying degrees of impact on the dividend payout for firms listed at the Nairobi Securities Exchange during the six year study period. However, the effects of the four independent variables on the dividend payout for firms listed at the NSE remained moderately high at 77.7 % as depicted by the overall findings.

Individually, the four variables posted different degrees of influence on the dividend payout ratio. The study established that firms' profitability had the greatest influence on dividend payout. This study therefore concludes that company profitabilty is a significant variable and largely influences the dividend payout for firms listed at the NSE.

The study also concludes that liquidity is a significant variable for determining dividend payout for firms listed at the NSE though with an inverse relationship. This is usually the case where firms make profits but at the same time have viable investment opportunities with positive net present value and thus such companies seek to re-invest the internally generated funds which otherwise could have been distributed as dividends hence the low dividend payout.

The study further concludes that although company sizes positively influences the dividend payout ratio, it is not significant as indicated by the significance value of 0.6139. This means that firm size does not play a significant role in determination of dividend payout. Finally, the study established that company earnings positively influence dividend payout and is a significant variable in determining dividend payout for firms listed at the NSE.

## 5.3 Recommendations for Policy and Practice

This study established that company earnings, liquidity, profitability and company size play a key role in determining dividend payout for firms listed at the at NSE. This study therefore recommends that companies listed at the NSE observe their policies dealing with these variables in order to ensure that their dividend payout ratio is kept stable because of the key information that it passes to both investors and the general public. This is consistent with the signalling effect theory and will ensure stability at the NSE which in turn promotes a vibrant market.

The study further established that there was a negative relationship between liquidity and dividend payout. This means that the more the companies' liquidity constraints the higher the probability that such companies will not pay cash dividends. This study

therefore recommends that companies maintain steady cash flows to enable them meet their cash flow requirements as and when they fall due.

This study also established that there exists a positive relationship between earnings and dividend payout ratio. Dividends are paid from earnings and thus earnings are a prerequisite for dividend payout. This study therefore, recommends that firms listed at the NSE manage their operational costs well at the same time optimizing their revenues so as to ensure a stable dividend payout as well as maximize their shareholders' wealth.

Additionally, the study established that company size positively influenced dividend payout. However, the relationship was weak (at 0.01) and was not significant. This is largely because small firms in most cases have more investment opportunities than their well established and well funded large mature companies. This study therefore recommends that firms listed at the NSE balance their company sizes appropriately to ensure that they attract the right shareholders using their dividend payout. This is in line with the Clientele effect theory which suggests that shareholders pursue different goals and will always shift their investment from one company to another until they find one(those) that best suits their investment needs.

Lastly, the study recommends that for investors at the NSE, desiring to earn good returns in form of dividends on their equity holding, they may wish to invest in highly profitable companies because they are more likely to pay high dividends irrespective of their size. This is thus prefered and recommended to the low income earners and the elderly or retired investors who need a constant source of income to cater for their day to day financial needs.

## 5.4 Limitations of the Study

The data used for this study was secondary data generated for other purposes. The financial management policies applied in different firms considered in this study may have influenced comparability of the variables used. For instance, in some firms, profit attributed to shareholders was taken to include extraordinary items and general provisions while in others this was not the case. Similarly, some companies used the weighted average number of shares issued during the year as opposed to shares in issue at one point in time when calculating earnings per share. This may have distorted the relationship among the variables and their level of significance.

This study was based on historical data and thus conclusions arrived at may not be usable to the future. The fact that data has been fully used and archived means that policy makers and academicians will always use projections in making any decisions for the future.

The study took a purposive sampling approach with a sample size of forty one firms. However, it was not possible to collect data from all the forty one firms since some of them (Hutchings Biemer Limited and A.Baumann and company Limited) were not actively participating in the market during the period of the study while others including Umeme Limited and Home Afrika Limited listed at the NSE during the course of the study period. Other firms including East African Portland Cement, Eveready East Africa, Express Kenya, Kenya Orchards and Marshalls East Africa did not pay dividends at all during the study period. Nevertheless, the data collected from the thirty two firms was considered sufficient for this study.

The inflation rates have been consistently high in the country forcing the Central Bank to raise its CBR rate which was passed on to other sectors in the economy thereby influencing the overall economic development of the country. This impacted negatively on the performance of the companies listed at the NSE.

## 5.5 Suggestions for further Research

This paper examined the determinants of dividend payout for companies listed at the Nairobi Securities Exchange using micro economic variables. In order to allow for thorough investigation, this study suggests that future studies be conducted using multiple factors that takes into account both the micro- and macro-economic variables. This will help researchers establish the effects of macro-economic variables for instance inflation, interest rates and foreign exchange rates on dividend payout for companies listed at NSE. Findings of such a study are likely to be more reliable.

Since this study used purposive sampling approach that excluded the banking, insurance and investment sectors, the study suggests that further future studies be done considering firms in all sectors at the NSE. This will give a more robust and clear indication of the variable(s) that determine dividend payout for firms listed at the NSE.

This study was conducted for a period of six years from 1st January 2008 to 31st December 2013. It is therefore, suggested that further similar study be conducted covering an extended period to ensure more data is collected on the variables in this study. This will indeed adequately validate the findings of this study.

Further, the study suggests that future studies be conducted to establish if the NSE market segmentation has any influence on dividend payout. This is so because there

could be industry specific factors that affect dividend payout differently for each sector.

Finally, the study also recommends that further studies be conducted on the influence of foreign investors on dividend payout for companies listed at the NSE. This is because there have been many foreign investors flocking into the Kenyan market especially after the 2013 general elections.

# REFERENCES


Abdul, F. (1993).An Empirical Study to Identify Parameters Which are Important in the Determination of Dividends by Publicly Quoted Companies, Unpublished MBA Project, University of Nairobi.

Abu, S. (2012).Determinants of dividend payout policy: Evidence from Bangladesh, *International Journal of Economic Practices and Theories*, 2(3)

Adaoglu, C. (2000).*Instability in the Dividend Policy of the Istanbul Stock Exchange (ISE) Corporations: Evidence from an Emerging Market, Review,* 1

Aduda, J. &Kimathi, H. (2011).The Applicability of the Constant Dividend Model for Companies Listed at the Nairobi Stock Exchange, *Journal of Financial Studies & Research,* 11.

Alli, K. L., Khan, A. Q. & Ramirez, G. (1993). Determinants of Corporate Dividend Policy: A Factorial Analysis. *The Financial Review*, 28(4), 523-547.

Amidu, M. (2007). How does dividend policy affect performance of the firm on Ghana stock Exchange. *Investment Management and Financial Innovations*, 4(2), 104 – 112

Aivazian, V., Booth, I & Cleary, S. (2003).Do emerging market firms follow different dividend policies from U.S. firms?.*Journal of Financial Research*, 26(3), 371-387.

Al-Kuwari, D. (2009). Determinants of the Dividend Payout Ratio of Companies Listed on Emerging Stock Exchanges: The Case of the Gulf Cooperation Council (GCC) Countries. *Global Economy & Finance Journal,* 2(2), 38-63

Al-Malkawi, H. (2007). Determinants of Corporate Dividend Policy in Jordan: An Application of the Tobit Model. *Journal of Economics and Administrative Sciences,* 23(2), 44-70.

Anand, M. (2004).Factors influencing dividend policy decisions. *The ICFAI Journal of Applied Finance,* 10(2), 5 – 16.

Anupam.M. (2012). An Empirical Analysis of Determinants of Dividend Policy - Evidence from the UAE Companies. *Global Review of Accounting and Finance,* 3(1), 18 – 31

Arnott, D. & Asness, S. (2003). Surprise higher dividends is higher earnings growth. *Financial Analyst Journal,* 70 – 87.

Arnott, D. & Asness, S. (2012). Does Dividend Policy Foretell Earnings Growth? Social Science Electronic Publishing, Inc

Azhagaiah, R. & Priya, S. (2008).The impact of dividend policy on shareholders' wealth. *International Research Journal of Finance and Economics,* 20, 180 – 187.

Baker, H. (1989). Why companies pay no dividends. *Akron Business and Economic Review,* Summer, 48-61.

Baker, H., Farrelly, G. & Edelman, R. (1986). Corporate Dividends: Views of the Policy Makers,*Akron Business and Economic Review,* 17, 62 – 74.

Baker, K. & Gandhi, D. (2007). The Perception of Dividends by Canadian Managers: New Survey evidence', *International Journal of Managerial Finance*, 13(1), 70–91

Baker, H. ,& Powell, G. (1999). How corporate managers view dividend policy? *Quarterly Journal of Business and Economics*, 38(2), 17-27.

Baker, H., Veit, E.& Powell, G. (2001). Factors influencing dividend policy decisions of Nasdaq firms. *The Financial Review*, 36(3), 19-37.

Baker, M. & Wurgler, J. (2002).A catering theory of dividends.1-61.

Bhat (1996). Determinants of Dividend policy, Unpublished MBA project, University of Nairobi.

Black, F. (1976). The Dividend Puzzle, *Journal of Portfolio Management*, 2, 5-8

Black, F. & Scholes, M. (1974).The effect of dividend yield and dividend policy on common stock and return, *Journal of financial economics*.

Brigham, E. & Ehrhardt, M. (2011).*Financial Management Theory and Practice* (13 Edition), South Western Cengage, Learning Graphic World, Inc.

Brigham, E. & Gapenski, L. (2002). Financial Management: Theory and practice, (10th edition.). United States: Thomson Learning, Inc.

Brook, Y., Charlton, W. & Hendershott, R. (1998). Do firms use dividends to signal large future cash flows? *Financial Management*, 27, 46-57.

Bulla, D. (2013). An empirical analysis of selected factors affecting dividend policy of listed firms at the Nairobi Securities Exchange.*African Journal of Accounting, Economics, Finance and Banking Research* 9 (9).

Chia-Ying C. et al. (2012). The Effects of Executive Stock Options and Stock Bonuses on Payout Policies in Taiwan, *Asia-Pacific Journal of Financial Studies* 41, 146–174

DeAngelo, H., DeAngelo, L., &Stulz, R. (2006). Dividend Policy and the earned/contributed capital mix: a test of the life-cycle theory. *Journal of Financial Economics*, 81, 227-254.

DeAngelo, H., & DeAngelo, L. (2006). Payout policy pedagogy: What matters and why. Working paper, University of Southern California.

Deshmukh, S. (2003). Dividend initiation and asymmetric information: a hazard model. *The Financial Review*, 38(3), 351-368.

Dewenter, K. & Warther, V. (1998). Dividends asymmetric information, and agency conflicts: Evidence from a comparison of the dividend policies of Japanese and U.S. firms. *Journal of Finance*, 53, 879-904.

Dhanani, A. (2005). Corporate dividend policy: The views of British financial managers. *Journal of Business Finance & Accounting*, 37(7) & (8), 1625 – 1672.

Easterbrook, H. (1984). Two agency - cost explanations of dividends. *American Economic Review*, 74(4) 650-659.

Eriotis, N. (2005). The Effect of Distributed Earnings and Size of the Firm to Its Dividend Policy: Some Greek Data. *International Business and Economics Journal*, 1, 67-74.

Escherich, F. (2000). Deliberating on dividend policy. *Directors & Boards*, 25(1), 33-38.

Fama, E.& French, K. (2001). Disappearing dividends: Changing firms characteristics or low propensity to pay?.*Journal of Finance Economics*, 60(1) 3- 43

Farsio, F., Geary, A., & Moser, J. (2004). The relationship between dividends and earnings. *Journal for Economic Educators*, 4(4), 1 – 5.

Gordon, M. (1963). Optimal Investment and Financing Policy. *Journal of Finance*, 264-272.

Gordon, B. & Myron, J. (1959).*Dividends, Earnings and stock prices, Review of economics and statistics* 41, 99-105

Gordon, M. & Shapiro, E. (1956). Capital Equipment Analysis: The Required Rate of Profit. *Management Science*, 3(1), 102-110

Grinblatt, M. & Titman, S. (1996).*Financial Markets and Corporate Strategy* (2nd Edition) MC Graw-Hill Irwin publishers.

Hafeez, A. & Attiya, Y. (2008). Determinants of dividend policy in Pakistan.

Jensen, G. & Johnson, J. (1995). The dynamics of corporate dividend reductions. *Financial Management*, 24(4), 31-51.

Jensen, M. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *Journal of American Economic Review*,76(2), 323-329.

Jensen, M. & Meckling, W. (1976). Theory of firm: managerial behavior, agency cost and ownership structure. *Journal of Financial Economics*, 3(4).

Jensen, M. & Smith, C. (1984). *The theory of corporate finance: A historical overview*. New York, NY: McGraw-Hill.

Juma'h, A. & Pacheco, O. (2008). The financial factors influencing cash dividend policy: A sample of U.S. manufacturing companies. *Inter Metro Business Journal*, 4(2), 23 – 43.

Kalay, A. (1982). Stockholder-Bondholder Conflict and dividend constraints. *Journal of Financial Economics,* 211-233.

Karanja, J. (1987). The dividend Practices of Publicly Quoted Companies in Kenya, Unpublished MBA Project, University of Nairobi.

Kenya Gazette Supplement No. 40 (2002). *The Capital Markets (Securities) (Public Offers, Listing and Disclosures) Regulations*. Legal Notice No. 60

Kibet B., Tenai J., Cheruiyot T., Maru L. & Kipsat M. (2010). The level of corporate dividend payout to stockholders: Does optimal dividend Policy exist for firms quoted at the Nairobi Stock Exchange? *International Business & Economics Research Journal*.

Kinyua, I. (2013). The relationship between earning volatility and the dividend payout of firms listed at the Nairobi Securities Exchange, Unpublished MBA Project, University of Nairobi.

Lintner, J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings and Taxes, *The American Economic Review*, 97 –113.

Litzenberger, R. & Ramaswamy, K. (1979).The Effects of Personal Taxes and Dividends on Capital Asset Prices: Theory and Empirical Evidence. *Journal of Financial Economics*, 7, 163-195.

Mathur, I. (1979). *Introduction to Financial Management*, McMillan publishing company Inc. New York.

Mayo, B. (2007). *An introduction to Financial Institutions, Investments and Management Basic Finance (9th Edition).*Thomson South Western Cengage Learning Graphic World, Inc.

McMenamin, J. (1999), *Financial Management: An Introduction*, Amazon, United Kingdom.

Miller, M. & Modigliani, F**.** (1961). Dividend Policy, Growth and the Valuation of Shares, *Journal of Business*.

Miller, M. & Rock, K. (1985). Dividend policy under asymmetric information. *Journal of Finance*, 40(4), 1031-1051.

Mohanty, P. (1999). Dividend and Bonus Policies of Indian companies: An Analysis,*Vikalpa*, 24(4), 35-42.

Muchiri, (2006). Determinants of Dividend Payout; The Case of Listed Companies in Kenya, Unpublished MBA project, University of Nairobi.

Mundati, Z. (2013). The effects of macroeconomic variables on the dividend payout of firms listed at the Nairobi Securities Exchange, Unpublished MBA project, University of Nairobi.

Murekefu, T. & Ochuodho, P. (2012). The Relationship between Dividend Payout and Firm Performance: A Study of Listed Companies in Kenya. *European Scientific Journal,* 8(9) 199-215.

Musiega G., Alala B., Musiega D., Maokomba C. &Egessa R. (2013). 'Determinants of Dividend Payout Policy among Non-financial firms on the Nairobi Securities Exchange, Kenya'.*International journal of scientific & Technology research,* 2(10).

Myers, S. & Majluf, N. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics,* 13, 187-221.

Nadler, P. (1977). Banks confronted with dilemma in deciding dividend policy. *American Banker*, 1-4.

Ndungu, A. (2009). Determinants of dividend policy: Evidence from the Nairobi Stock Exchange, Unpublished MBA Project, University of Nairobi.

Nissim, D. & Ziv, A. (2001). Dividend Changes and Future Profitability. *Journal of Finance*, 56(6), 2019–65.

Ochieng, E. & Kinyua, H. (2013). Relationship between Inflation and Dividend Payout for Companies Listed At the Nairobi Securities Exchange. *International Journal of Education and Research,*1(6).

Pan, M. (2001). Aggregate dividend behavior and permanent earnings hypothesis. *The Financial Review,* 36(1), 23-38.

Pandey, M. (2004). *Financial management*. Vikas publishing house PVT limited.

Pandey, M. (2005). *Financial Management*, 9th Edition, Vikas Publishing House, India.

Pandey, M. (2010). *Financial Management* (10th ed). India: Vikas Publishing House.

Pettit, R. (1972). Dividend Announcements, Security Performance, and Capital Market Efficiency. *The Journal of Finance*, 27 (5), 993-1007.

Petit, R. (1977). Taxes, Transaction costs and clientele effects of dividends. *Journal of Financial Economics,* 49-436.

Pruitt, S. &Gitman, L. (1991). "The Interactions between the Investment, Financing, and Dividend Decisions of Major U.S. Firms," *The Financial Review* 26(3), 409-430.

Ross, S. (1977). The Determination of Financial Structure: The Incentive Signaling Approach. *Bell Journal of Economics,*8(1), 23- 40.

Ross, S., Westerfield, R., Jaffe, J. & Jordan, B. (2008).*Modern Financial Management*, 8th ed., McGraw-Hill, New York.

Rozeff, M. (1982).Growth, beta and agency costs as determinants of dividend payout ratios. *The Journal of Financial Research*, 5(3), 249-259.

Stulz, R. (2000).Merton Miller and modern finance.*Financial Management*, 29(4), 119–131.

Syed, Z. & Wasim, U. (2011).Impact of Ownership Structure on Dividend Policy of Firm (Evidence from Pakistan), *2010 International Conference on E-Business, Management and Economics*3.

Zinkmund, W. (2003).*Business research methods*. Oklahoma State University, Thomson South Western.

# Appendices

## Appendix I

## COMPANIES LISTED AT THE NSE AS AT 6TH JUNE 2014

### Agricultural sector

1 Eaagads Limited

2 Kakuzi Limited

3 Kapchorua Tea Company Limited

4 The Limuru Tea Company Limited

5 Rea Vipingo Plantations Limited

6 Sasini Limited

7 Williamson Tea Kenya Limited

### Automobiles and Accessories sector

8 Car & General Kenya Limited

9 CMC Holdings Limited

10 Marshalls East Africa Limited

11 Sameer Africa Limited

### Banking sector

12 Barclays Bank of Kenya Limited

13 CFC Stanbic of Kenya Holdings Limited

14 Diamond Trust Bank Kenya Limited

15 Equity Bank Limited

16 Housing Finance Company Kenya Limited

17 I&M Holdings Limited

18 Kenya Commercial Bank Limited

19 National Bank of Kenya Limited

20 National Industrial Credit Bank Limited

21 Standard Chartered Bank Kenya Limited

22 The Cooperative Bank of Kenya Limited

## Commercial and Services sector

23 Express Kenya Limited

24 Hutchings Biemer Limited

25 Kenya Airways Limited

26 Longhorn Kenya Limited

27 Nation Media Group Limited

28 Scangroup Limited

29 Standard Group Limited

30 TPS Eastern Africa Limited

31 Uchumi Supermarket Limited

## Construction and Allied sector

32 Athi River Mining

33 Bamburi Cement Limited

34 Crown Paints Kenya Limited

35 East African Cables Limited

36 East African Portland Cement Company Limited

## Energy and Petroleum sector

37 Kengen Company Limited

38 KenolKobil Limited

39 Kenya Power and Lighting Company Limited

40 Total Kenya Limited

41 Umeme Limited

## Insurance sector

42 British-American Investments Company (Kenya) Limited

43 CIC Insurance Group Limited

44 Jubilee Holdings Limited

45 Kenya Re-Insurance Corporation Limited

46 Liberty Kenya Holdings Limited

47 Pan Africa Insurance Holdings Limited

## Investment sector

48 Centum Investment Company Limited

49 Olympia Capital Holdings Limited

50 Trans-Century Limited

## Manufacturing and Allied sector

51 A. Baumann and Company Limited

52 BOC Kenya Limited

53 British American Tobacco Kenya Limited

54 Carbacid Investments Limited

55 East African Breweries Limited

56 Eveready East Africa Limited

57 Kenya Orchards Limited

58 Mumias Sugar Company Limited

59 Unga Group Limited

## Telecommunication and Technology sector

60 Safaricom Limited

## Growth Enterprise Market Segment (GEMS) sector

61 Home Afrika Limited

Source: http://www.nse.co.ke/listed-companies viewed in June, 2014

# Appendix II: Dividend Payout

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| BOC Kenya Ltd | 0.66 | 0.86 | 2.31 | 0.88 | 0.5 | 0.50 |
| Athi River Mining | 0.25 | 0.23 | 0.16 | 0.17 | 0.2 | 0.22 |
| Bamburi Cement | 0.68 | 0.6 | 0.61 | 0.69 | 0.86 | 0.94 |
| British American Tobacco - Kenya | 1 | 1 | 0.99 | 0.98 | 0.99 | |
| Car & General Kenya | 0.07 | 0.08 | 0.07 | 0.07 | 0.07 | 0.09 |
| Carbacid Kenya | 0.67 | 1.98 | 0.55 | 0.56 | 0.52 | 0.43 |
| CMC Holdings | 0.28 | 0.38 | 0.29 | 0 | 0 | |
| Crown Paints | 1.09 | 1 | 1 | 0.72 | 0.94 | 0.19 |
| East African Breweries | 0.84 | 0.92 | 0.96 | 0.94 | 0.65 | 0.62 |
| East African Cables | 0.48 | 0.4 | 1.1 | 0.68 | 0.43 | 0.73 |
| East African Portland Cement | | | | | | |
| Eaagads | 0 | 0.42 | | 0.14 | 0.92 | 0.00 |
| Eveready East Africa | 0 | 0 | 0 | 0 | 0 | 0.00 |
| Express Kenya | 0 | 0 | 0 | 0 | 0 | |
| Kakuzi | 0.11 | 0.14 | 0.16 | 0.13 | 0.19 | 0.45 |
| Kapchorua Tea Company | -0.14 | 0.36 | 0.17 | 0.15 | 0.37 | |
| KenGen | 0.33 | 0.53 | 0.33 | 0.52 | 0.46 | 0.25 |
| KenolKobil | 0.44 | 0.36 | 0.39 | 0.44 | 0 | |
| Kenya Airways | 0.2 | -0.11 | 0.22 | 0.19 | 0.22 | 0.00 |
| Kenya Orchards | | | | | | |
| Kenya Power & Lighting | 0.18 | 0.2 | 2.67 | 0.21 | 0.21 | 0.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Limuru Tea | 0.71 | 0.33 | 0.12 | 0.22 | 0.09 | |
| LongHorn Kenya | 0.45 | 0.58 | 0.54 | 0.69 | 0 | 0.50 |
| Marshalls East Africa | 0 | 0 | 0 | 0 | 0 | |
| Mumias Sugar | 0.5 | 0.38 | 0.39 | 0.4 | 0.38 | |
| Nation Media Group | 0.3 | 0.7 | 0.81 | 1.04 | 0.62 | 0.75 |
| REA Vipingo Plantations | 0.07 | 0.2 | 0.71 | 0.14 | 0.17 | |
| Safaricom | 0.14 | 0.38 | 0.53 | 0.61 | 0.7 | 0.70 |
| Sameer Africa | 0 | 0.88 | 0 | 0.57 | 0.37 | 0.21 |
| Sasini | 0 | 0.15 | 0.16 | 0.13 | 0 | 0.46 |
| ScanGroup | 0.39 | 0.28 | 0.33 | 0.27 | 0.27 | 0.15 |
| Standard Group | 0.28 | 0.14 | 0.13 | 0 | 0 | |
| Total Kenya | 0.62 | 0.35 | 0.19 | -2.57 | -0.17 | 0.29 |
| TPS Serena | 0.59 | 0.34 | 0.35 | 0.31 | 0.39 | 0.39 |
| Uchumi | | 0.12 | | | 0.29 | 0.22 |
| Unga Group | 0 | 0 | 0.28 | 0.21 | 0.27 | |
| Williamson Tea Kenya | -0.04 | 0.31 | 0.06 | -0.26 | 0.07 | |

# Appendix III: Company Size

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| BOC Kenya Ltd | 21.4446 | 21.4106 | 21.4263 | 21.3203 | 21.4112 | 21.6914 |
| Athi River Mining | 22.2295 | 22.8966 | 23.3154 | 23.5018 | 23.7413 | 24.1146 |
| Bamburi Cement | 24.0631 | 24.1925 | 24.2290 | 24.2349 | 24.4853 | 24.4848 |
| British American Tobacco - Kenya | 22.4994 | 22.5510 | 22.6713 | 22.8527 | 22.9342 | 23.0461 |
| Car & General Kenya | 21.7351 | 21.8897 | 22.0769 | 22.4393 | 22.4647 | 22.6550 |
| Carbacid Kenya | 20.8813 | 20.9932 | 21.0918 | 21.2505 | 21.3453 | 21.5137 |
| CMC Holdings | 23.2101 | 23.3105 | 23.4089 | 23.4029 | 23.2849 | 23.2327 |
| Crown Paints | 21.3902 | 21.3430 | 21.4025 | 21.5187 | 21.5379 | 21.8035 |
| East African Breweries | 23.8838 | 23.9467 | 24.0017 | 24.2499 | 24.1921 | 24.1874 |
| East African Cables | 21.3411 | 21.5546 | 21.8608 | 21.7944 | 22.0360 | 22.6416 |
| East African Portland Cement | 22.9286 | 23.2112 | 23.2113 | 23.3282 | 23.3688 | 23.5042 |
| Eaagads | 19.3417 | 19.3521 | | 19.6454 | 20.1591 | 20.0292 |
| Eveready East Africa | 20.5457 | 20.7209 | 20.9021 | 20.7400 | 20.8637 | 20.6621 |
| Express Kenya | 20.5139 | 20.5031 | 20.4771 | 19.6941 | 19.6270 | 19.9904 |
| Kakuzi | 21.7025 | 21.7787 | 21.8922 | 22.0628 | 21.9963 | 22.0363 |
| Kapchorua Tea Company | 20.5776 | 20.6837 | 20.8051 | 20.9826 | 21.1327 | 21.0861 |
| KenGen | 25.3191 | 25.3554 | 25.6903 | 25.7321 | 25.7215 | 25.8649 |
| KenolKobil | 23.1575 | 23.0400 | 23.1650 | 23.3020 | 22.7171 | 24.0598 |
| Kenya Airways | 24.8611 | 24.7170 | 24.6876 | 24.7580 | 24.7062 | 25.5328 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Kenya Orchards | | 17.8236 | 17.8327 | | | |
| Kenya Power & Lighting | 24.8145 | 24.9810 | 25.1662 | 25.5205 | 25.6221 | 25.9003 |
| Limuru Tea | 17.6766 | 18.0299 | 18.8067 | 19.0399 | 19.5504 | 19.4420 |
| LongHorn Kenya | 19.8522 | 19.8824 | 20.0751 | 20.3803 | 20.3103 | 20.3450 |
| Marshalls East Africa | 20.3536 | 20.5091 | 20.1357 | 19.8159 | 19.7884 | 19.5010 |
| Mumias Sugar | 23.0986 | 23.3418 | 23.4200 | 23.7173 | 23.7996 | 17.1168 |
| Nation Media Group | 22.2152 | 22.2925 | 22.4137 | 22.5615 | 22.7329 | 22.8429 |
| REA Vipingo Plantations | 20.7979 | 20.8969 | 20.9624 | 21.3457 | 21.4740 | 21.6698 |
| Safaricom | 24.6176 | 24.7472 | 24.9761 | 25.1020 | 25.1575 | 25.2479 |
| Sameer Africa | 21.4820 | 21.5486 | 21.4971 | 21.5341 | 21.5677 | 22.0230 |
| Sasini | 22.5850 | 22.7502 | 22.8681 | 22.9069 | 22.8440 | 22.9265 |
| ScanGroup | 22.0514 | 22.0927 | 22.8039 | 22.8621 | 22.8805 | 23.2843 |
| Standard Group | 21.3336 | 21.4901 | 21.5432 | 21.5639 | 21.5916 | 22.1432 |
| Total Kenya | 22.3363 | 23.2836 | 23.3099 | 23.2260 | 23.4345 | 23.5264 |
| TPS Serena | 22.4261 | 22.5164 | 23.0520 | 23.1671 | 23.1602 | 23.3619 |
| Uchumi | | 22.5164 | 21.3433 | 21.6245 | 21.7305 | 21.8628 |
| Unga Group | 22.2838 | 22.4399 | 22.3455 | 22.4653 | 22.5812 | 22.6969 |
| Williamson Tea Kenya | 21.9185 | 21.3457 | 22.2004 | 22.3995 | 22.5520 | 22.4911 |

# Appendix IV: Profitability

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| BOC Kenya Ltd | 0.1561 | 0.1197 | 0.0687 | 0.1249 | 0.1525 | 0.1631 |
| Athi River Mining | 0.1090 | 0.1255 | 0.0002 | 0.1406 | 0.1093 | 0.0951 |
| Bamburi Cement | 0.1242 | 0.2324 | 0.1887 | 0.1633 | 0.1302 | 0.1083 |
| British American Tobacco - Kenya | 0.0975 | 0.0790 | 0.0782 | 0.1075 | 0.1072 | 0.1026 |
| Car & General Kenya | 0.0717 | 0.0455 | 0.0498 | 0.0474 | 0.0467 | 0.0448 |
| Carbacid Kenya | 0.4308 | 0.4637 | 0.4957 | 0.5246 | 0.4223 | 0.4991 |
| CMC Holdings | 0.0808 | 0.0460 | 0.0320 | 0.0153 | 0.0090 | 0.0090 |
| Crown Paints | 0.0129 | 0.0339 | 0.0298 | 0.0335 | 0.0301 | 0.0415 |
| East African Breweries | 0.2827 | 0.2401 | 0.2285 | 0.2010 | 0.2015 | 0.1176 |
| East African Cables | 0.1178 | 0.1053 | 0.0510 | 0.0633 | 0.1214 | 0.0884 |
| East African Portland Cement | 0.0745 | 0.2264 | -0.0302 | 0.0002 | -0.0954 | 0.1927 |
| Eaagads | 0.4166 | 0.0984 | | 0.3889 | 0.1388 | -0.8705 |
| Eveready East Africa | 0.0101 | 0.0172 | 0.0053 | -0.0902 | 0.0510 | 0.0318 |
| Express Kenya | -0.0538 | 0.0169 | -0.0328 | -0.5087 | 0.0567 | 0.0006 |
| Kakuzi | 0.1374 | 0.1935 | 0.1839 | 0.2711 | 0.2000 | 0.1192 |
| Kapchorua Tea Company | -0.1214 | 0.0941 | 0.1232 | 0.1500 | 0.0554 | |
| KenGen | 0.5106 | 0.1637 | 0.2988 | 0.1446 | 0.1764 | 0.3191 |

| | | | | | | |
|---|---|---|---|---|---|---|
| KenolKobil | 0.0086 | 0.0134 | 0.0188 | 0.0147 | -0.0326 | 0.0051 |
| Kenya Airways | 0.0640 | 0.0568 | 0.0288 | 0.0412 | 0.0154 | -0.0795 |
| Kenya Orchards | | -0.1283 | 0.0242 | | | |
| Kenya Power & Lighting | 0.0423 | 0.0486 | 0.0508 | 0.0577 | 0.0483 | 0.0908 |
| Limuru Tea | 0.1218 | 0.2959 | 0.6042 | 0.3950 | 0.8778 | |
| LongHorn Kenya | 0.1203 | 0.0315 | 0.0410 | 0.1160 | -0.0290 | 0.0909 |
| Marshalls East Africa | -0.1899 | -0.1982 | -0.5700 | 0.6899 | -0.7065 | 0.4774 |
| Mumias Sugar | 0.1014 | 0.1365 | 0.1007 | 0.1224 | 0.1295 | 0.1396 |
| Nation Media Group | 0.1571 | 0.1367 | 0.1602 | 0.1070 | 0.2033 | 0.1894 |
| REA Vipingo Plantations | 0.1240 | 0.1086 | 0.0467 | 0.2208 | 0.1479 | 0.1722 |
| Safaricom | 0.2257 | 0.1495 | 0.1804 | 0.1388 | 0.1180 | 0.1411 |
| Sameer Africa | 0.0498 | 0.0482 | 0.0172 | 0.0264 | 0.0479 | 0.0996 |
| Sasini | 0.6081 | 0.2443 | 0.4324 | 0.1689 | -0.0446 | 0.0326 |
| ScanGroup | 0.2198 | 0.2470 | 0.2731 | 0.2533 | 0.1777 | 0.1783 |
| Standard Group | 0.1015 | 0.0952 | 0.0901 | 0.0464 | 0.0507 | 0.0393 |
| Total Kenya | 0.0128 | 0.0117 | 0.0116 | -0.0007 | -0.0017 | 0.0085 |
| TPS Serena | 0.0687 | 0.0934 | 0.1153 | 0.1127 | 0.0924 | 0.0919 |
| Uchumi | | 0.0000 | 0.0905 | 0.0362 | 0.0199 | 0.0250 |
| Unga Group | 0.0395 | 0.0159 | 0.0205 | 0.0334 | 0.0218 | 0.0000 |
| Williamson Tea Kenya | 0.0890 | 0.0737 | 0.3217 | 0.1246 | 0.2369 | 0.1328 |

# Appendix V: Liquidity

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| BOC Kenya Ltd | 0.5528 | 0.4881 | 0.4936 | 0.4899 | 0.5468 | 2.2270 |
| Athi River Mining | 1.0228 | 1.0027 | 1.3223 | 0.8423 | 1.2205 | 0.9451 |
| Bamburi Cement | 1.8438 | 2.5835 | 1.7233 | 2.6204 | 2.3480 | 2.6813 |
| British American Tobacco - Kenya | 1.0506 | 0.9794 | 1.1699 | 1.3069 | 1.1780 | 3.9362 |
| Car & General Kenya | 8.7933 | 9.8898 | 9.7014 | 6.4993 | 5.3602 | 1.1120 |
| Carbacid Kenya | 14.2307 | 10.6254 | 5.7860 | 8.8431 | 4.2579 | 10.0893 |
| CMC Holdings | 1.4556 | 1.4401 | 1.3910 | 1.3673 | 1.5375 | 0.0040 |
| Crown Paints | 1.3360 | 1.4358 | 1.4923 | 1.4639 | 1.5359 | 1.3815 |
| East African Breweries | 1.7445 | 1.6909 | 1.4856 | 1.0523 | 0.8031 | 0.6988 |
| East African Cables | 1.6602 | 1.3625 | 1.2832 | 1.1606 | 1.1971 | 1.3048 |
| East African Portland Cement | 2.2627 | 2.0703 | 1.5853 | 1.5104 | 1.1296 | 1.5769 |
| Eaagads | 2.3446 | 6.7019 | | 5.9438 | 18.7609 | 1.3317 |
| Eveready East Africa | 1.6612 | 1.5057 | 1.4105 | 1.1143 | 1.2591 | 1.5404 |
| Express Kenya | 0.3619 | 0.3065 | 0.3198 | 0.3362 | 0.3962 | 0.5506 |
| Kakuzi | 1.0745 | 1.4969 | 2.0735 | 3.3451 | 8.4745 | 7.9538 |
| Kapchorua Tea Company | 1.7729 | 1.6829 | 1.6410 | 2.1013 | 1.6463 | 2.0263 |
| KenGen | 1.3445 | 2.1727 | 4.7131 | 1.7358 | 1.4858 | 1.4218 |
| KenolKobil | 1.2950 | 1.3022 | 1.3779 | 1.2242 | 0.9684 | 0.9346 |
| Kenya Airways | 1.5187 | 0.9073 | 0.8678 | 1.0634 | 0.9191 | 0.5627 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Kenya Orchards | 1.2773 | 1.1480 | 1.2914 | 0.9465 | 0.9343 | 1.0690 |
| Kenya Power & Lighting | 0.5776 | 0.4853 | 0.3657 | 0.4310 | 0.3107 | 0.9226 |
| Limuru Tea | 3.9509 | 3.8366 | 7.9695 | 18.2869 | 12.4098 | 22.4286 |
| LongHorn Kenya | 2.5111 | 2.0388 | 1.8963 | 1.7668 | 1.1182 | 1.6190 |
| Marshalls East Africa | 1.2938 | 0.8864 | 0.4979 | 0.2717 | 1.1297 | 1.5543 |
| Mumias Sugar | 1.3482 | 1.3594 | 1.9987 | 2.1986 | 1.2536 | 1.5921 |
| Nation Media Group | 1.8537 | 2.1282 | 1.9885 | 2.3134 | 2.2533 | 2.5203 |
| REA Vipingo Plantations | 1.4273 | 2.2393 | 1.3425 | 2.1027 | 3.4093 | 4.7171 |
| Safaricom | 0.5105 | 0.4894 | 0.6674 | 0.6361 | 0.5634 | 0.6930 |
| Sameer Africa | 3.8349 | 3.4255 | 0.3895 | 3.0200 | 2.8332 | 2.9703 |
| Sasini | 2.6903 | 2.5555 | 2.3652 | 2.1309 | 1.8952 | 1.7710 |
| ScanGroup | 2.1260 | 2.0661 | 1.6786 | 2.0468 | 2.2824 | 2.4636 |
| Standard Group | 1.3655 | 1.2713 | 1.3221 | 1.0780 | 1.1158 | 0.9179 |
| Total Kenya | 1.2371 | 1.1161 | 1.1769 | 1.1025 | 1.3020 | 1.2788 |
| TPS Serena | 1.2286 | 1.5407 | 1.4089 | 1.4950 | 1.0119 | 1.0575 |
| Uchumi | | 1.5407 | 0.9221 | 0.9063 | 0.7234 | 0.7048 |
| Unga Group | 1.9161 | 1.8383 | 2.5438 | 2.5245 | 2.3603 | 2.4595 |
| Williamson Tea Kenya | 2.1835 | 2.7448 | 2.0344 | 3.3849 | 2.4058 | 2.1214 |

# Appendix VI: Earnings

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| BOC Kenya Ltd | 0.1700 | -0.2151 | -0.5050 | 0.8742 | 0.3338 | 0.0757 |
| Athi River Mining | 0.1366 | 0.3448 | 0.1731 | 0.2246 | 0.3136 | 0.1172 |
| Bamburi Cement | -0.1018 | 0.9628 | -0.2118 | 0.1192 | -0.1524 | -0.2313 |
| British American Tobacco - Kenya | 0.1792 | -0.1274 | 0.2910 | 0.6470 | 0.0603 | 0.1505 |
| Car & General Kenya | 0.2491 | -0.1312 | 0.1782 | 0.3000 | -0.1715 | 0.2946 |
| Carbacid Kenya | 0.0672 | 0.5170 | 0.1935 | -0.1457 | 0.4309 | 0.1853 |
| CMC Holdings | 0.5114 | -0.3925 | -0.2755 | -0.6417 | 0.1029 | -0.1354 |
| Crown Paints | -0.4456 | 0.7976 | 0.2121 | 0.1833 | 0.1178 | 0.4875 |
| East African Breweries | 0.1580 | -0.0657 | 0.0922 | -0.0246 | 0.2442 | -0.2713 |
| East African Cables | 0.1212 | -0.2142 | -0.5087 | 0.7969 | 0.6207 | -0.2228 |
| East African Portland Cement | -0.3566 | 1.6284 | -1.1799 | -0.6483 | 6.1366 | -2.6706 |
| Eaagads | -0.1022 | -0.6082 | -1.0000 | | -0.6435 | -3.3004 |
| Eveready East Africa | -0.5984 | 0.4923 | -0.6453 | -12.7461 | -1.3979 | -0.1231 |
| Express Kenya | -2.2436 | -1.4902 | -1.5737 | 13.9543 | -0.9405 | -1.1281 |
| Kakuzi | 0.0925 | 0.9791 | 0.0039 | 0.6471 | -0.3829 | -0.5785 |
| Kapchorua Tea Company | -1.9289 | -1.9675 | 1.0007 | 0.3451 | -0.5806 | 1.1349 |
| KenGen | -0.3476 | 0.4799 | -0.4546 | 0.4694 | 0.1079 | 0.0118 |
| KenolKobil | 1.1449 | 0.0285 | 0.4669 | 0.7396 | -2.8170 | -1.0629 |
| Kenya Airways | -0.0774 | 0.0274 | -0.5284 | 0.8727 | -0.5710 | -6.0447 |
| Kenya Orchards | -1.0000 | | 1.6655 | -1.0000 | | |
| Kenya Power & Lighting | 0.0338 | 0.7465 | 0.1813 | 0.1071 | 0.3600 | -0.2448 |
| Limuru Tea | -0.2294 | 1.5424 | 1.6937 | -0.4263 | 1.4498 | -0.8717 |

| | | | | | | |
|---|---|---|---|---|---|---|
| LongHorn Kenya | -0.0986 | -0.7377 | -0.1476 | 6.7756 | -1.1218 | -6.8317 |
| Marshalls East Africa | -2.3871 | -0.3077 | 1.9343 | -1.5265 | -1.9120 | -1.6647 |
| Mumias Sugar | -0.1679 | -0.2492 | 0.8270 | 0.2141 | -0.3335 | 0.2676 |
| Nation Media Group | 0.1927 | -0.1533 | 0.3272 | -0.0651 | 0.7464 | 0.0235 |
| REA Vipingo Plantations | 0.3542 | -0.0579 | -0.5146 | 5.5330 | -0.1820 | 0.1669 |
| Safaricom | 0.2020 | -0.2327 | 0.3700 | -0.1243 | -0.0540 | 0.4653 |
| Sameer Africa | 10.1350 | 0.3380 | -0.7191 | 1.3866 | 1.0251 | 0.5186 |
| Sasini | 0.8073 | -0.4001 | 0.8196 | -0.2664 | -0.9160 | 0.8587 |
| ScanGroup | 0.2379 | 0.2458 | 0.5409 | 0.5268 | -0.1446 | -0.0517 |
| Standard Group | 0.4081 | -0.1219 | 0.2049 | -0.4884 | 0.1433 | 0.1331 |
| Total Kenya | 10.4880 | -0.2886 | 0.8924 | -0.9583 | 0.1115 | 31.4181 |
| TPS Serena | -0.4655 | 0.5757 | 0.3326 | 0.2312 | -0.1543 | 0.3489 |
| Uchumi | -1.0000 | | -4.1092 | 0.1885 | -0.2166 | 0.2047 |
| Unga Group | 1.3851 | -0.5044 | 0.2753 | 0.8675 | -0.2105 | -0.2584 |
| Williamson Tea Kenya | -1.6726 | -2.0094 | 7.4166 | 0.0576 | -0.1006 | -0.0067 |