THE RELATIONSHIP BETWEEN DIVIDEND PAY-OUT RATIO AND VALUE OF SHARES OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This research project report is my original work and has never been presented for award of a degree in this or any other institution of higher learning.

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This research project report has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

To

My dear loving wife,

Rose Wanjiku.

Your wholehearted support, understanding and encouragement made it possible for me to

complete this project.

To

My beloved daughter,

Tatiana Wanjira.

Your smile kept me going. That you may be inspired to achieve greater success.

To my loving mum,

Hannah Wanjira.

You have been a strong source of encouragement throughout my academic voyage.

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On a very special note I wish to extend my sincere thanks to my university supervisor Mr. Barasa for his encouragement, guidance and commitment during the execution of this project. Similarly I wish to appreciate the knowledge imparted by the various lecturers during the entire course.

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ABSTRACT

This study was carried out with an objective of establishing the nature of relationship between the dividend pay-out ratios and share prices for firms listed at the NSE for the period of five years between 2009 and 2013. The effect of dividend policy on a firm's value has remained a puzzle in corporate finance for several decades. The various studies in the past have not been able to conclusively determine the nature of relationship between dividend pay-out ratios and the resultant value of shares. The study used a multivariate regression analytical model with the share price being the dependent variable and the independent variables being the dividend pay-out ratio, total assets and the rate of growth in earnings of the selected companies. The findings of the study showed that dividend pay-out ratios affect the value of shares of a firm and that this relationship is significant and positive. Results also revealed that the lag of dividend payout has a significant relationship with the share value. Further the findings showed that both total assets and growth in earnings have an insignificant relationship with share price. Therefore, any change in these variables may not influence the share value. Finally similar studies were suggested to be carried out using additional moderating variables and over a longer period of time.

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ABBREVIATIONS

CBK   Central Bank of Kenya

CMA   Capital Markets Authority

NBK   National Bank of Kenya

NSE   Nairobi Securities Exchange

CHAPTER ONE

INTRODUCTION

1.1   Background

In today's ultra-competitive and complex business environment, the need to develop appropriate dividend policies in order to maximize shareholder's wealth has become a tasking responsibility for finance managers. Shareholders' wealth is reflected in the market price of the company's common stock. Shareholders like cash dividends and they also like the growth in earning per share that results from investing the earnings from a business back into it. The best dividend policy is the one that maximizes the company's stock price which leads to maximization of shareholders' wealth and at the same time ensures growth of the company by retaining sufficient funds for re-investment.

According to Miller and Modigliani (1961), the effect of a firm's dividend policy on the current price of its shares is a matter of considerable importance, not only to the corporate officials who must set the policy, but to investors planning portfolios and to economists seeking to understand and appraise the functioning of the capital markets. This statement underlines the significance of dividend policy on the value of shares of firms across all industries of an economy. This study aims at establishing the nature of relationship between the dividend pay-out ratios and share prices for firms listed at the NSE for the period of five years between 2009 and 2013.

1.1.1 Dividend Pay-Out Ratio

The dividend pay-out ratio of a firm indicates the percentage of each shilling earned that is distributed to the owners in form of cash. In other words the dividend pay-out ratio determines what proportion of earnings is distributed to the shareholders by way of dividends, and what proportion is ploughed back for reinvestment purposes. Anil et al (2008) has argued that profitability has always been considered as a primary indicator of a firm's dividend payout ratio.Dividend pay-out ratios are usually established within the wider framework of a firm's dividend policy. Baker et al (2001) explained that dividend policy can affect the value of the firm and in turn, the wealth of shareholders.

According to Profilet and Bacon (2013) three dividend policies have emerged as the most widely supported throughout the finance community. The first approach is the Smoothed Residual Dividend Policy. The basis for this policy is that the annual/quarterly change in the absolute dollar amount of the dividend is kept to a minimum. The dividend per share is kept stable and is only altered if the long term profitability forecast of the firm has been adjusted. The second dividend policy is referred to as the Pure Residual Dividend Policy. This policy, which puts a large emphasis on fundamental analysis, looks at the comparison between a firm's return on equity and the rate of return that an investor could achieve an alternative venture. Once a firm has determined their optimal capital budget and the appropriate capital has been allocated to internal investments, the remaining residual funds can then be used to pay-out a dividend accordingly. The third dividend policy is the Constant Pay-out Residual Dividend policy.

This policy incorporates the idea that a company should work to ensure that the dividend pay-out ratio remains constant. To ensure that the pay-out ratio remains constant, management must adjust the dollar amount of dividends paid out according to the quarterly earnings results.

In effect the dividend policy chosen by a company's management would determine its dividend pay-out ratio in a given financial year. The dividend pay–out ratio of a company relative to its peers would be a key factor that current and potential investors consider in determining a company's attractiveness. Finance managers are thus required to exercise prudence and principled judgment in determining the dividend pay-out ratio for their firms.

1.1.2 Value of Shares

The value of common stock of a company is determined by discounting the future cash flows expected from the share at a discounting rate equivalent to the cost of capital for the company. The future cash flows in this generic model include the stream of dividends or other cash pay-outs over the life of the investment. The cost of capital is the rate of return required by the market suppliers of capital to compensate them for the time value of money and risk associated with the stock's future cash flows. In an efficient capital market the market prices of the shares are deemed to reflect the intrinsic value of the shares.

According to Muigai (2012) a company's share price is influenced by factors either internal to the company or from the general macroeconomic environment like levels of inflation, monetary policies and social-political factors among others. These factors do influence forces of demand and supply which in turn determine the share equilibrium price in the stock markets.

The large variety of factors that influence a company's share price makes it a very sensitive element to manage. In spite of this management challenge, the market value of a firm's shares remains the most acceptable measure of the shareholder's wealth. This means that a firm's finance managers must continuously evaluate the impact of their day-to-day decisions on the value of the company's shares. In this study the value of shares is as quoted on the Nairobi Securities Exchange (NSE).

1.1.3 Dividend Payout Ratio and Value of Shares

In their widely quoted studies of 1961, Miller and Modigliani posed some significant questions. Do companies with generous distribution policies consistently sell at a premium over those with –niggardly payouts? Is the reverse ever true? If so, under what conditions? Is there an optimum payout ratio or range of ratios that maximizes the current worth of the shares? From these questions an analysis of the cause-and effect relationship between a company's dividend pay-out ratio and the value of its shares is intriguing. According to Kapoor (2009) management's primary goal of shareholders wealth maximization can be achieved by giving the shareholders a "fair" payment on their investments.

According to the "bird-in-the hand" hypothesis the effect of dividend policy on a firm's value is that dividends increase firm value. In a world of uncertainty and imperfect information, dividends are valued differently to retained earnings (or capital gains). Investors prefer the "bird in the hand" of cash dividends rather than the "two in the bush" of future capital gains. Increasing dividend payments, ceteris paribus, may then be associated with increases in firm value (Al-Malkawi, Raffert and Pillai, 2010).

A positive change in a firm's dividend pay –out ratios is deemed as a communication of brighter future prospects as explained by Ross (1977) in the information signaling theory. Based on the dividend relevance theories and past empirical evidence cash dividends are one of the variables which owners and investors use to determine share value. This informs an expected direct relationship between the sampled firms' dividend pay-out ratios and the publicly quoted value of their shares.

1.1.4 Firms Listed on the Nairobi Securities Exchange

Trading in shares in Kenya started informally in the 1920s when Kenya was a British colony. Since then the Nairobi Securities Exchange has developed to its current status as one of the leading securities market in Africa. On Monday, 11 September 2006 live trading on the automated trading systems of the NSE was implemented. *Source; NSE website.*

As at August 2014 there were a total of 61 firms listed on the NSE. The listed firms are classified under different segments namely agricultural, automobiles and accessories, banking, commercial and services, construction and allied, energy and petroleum,

insurance, investment, manufacturing and allied, telecommunication and technology, and growth enterprise market segment. The level of activity of the exchange is measured by the NSE's All Share Index. *Source; NSE website.*

1.2   Research Problem

The effect of dividend policy on a firm's value has remained a puzzle in corporate finance for several decades. The various studies have not been able to conclusively determine the relationship between dividend pay-out ratios and the resultant value of shares. Since the main objective of financial management is to maximize the market value of equity shares, this puzzle needs further research to ensure development of appropriate dividend policies.

From a global perspective various researchers have found some evidence that there is a strong and direct relationship between dividend pay-out ratios of a firm and its share prices. This is explained through the bird in hand and information signaling theories. According to the dividend discount model by Gordon (1959); it is feasible to derive that dividend payment augmentation should be accompanied by the value increase in a firm. On the other hand the dividend irrelevance theories conclude that there is no direct relationship between a firm's dividend policy and the value of its shares. Profilet and Bacon (2013) conducted a research on dividend policy and stock price volatility in the U.S equity capital market.

The results revealed that leverage and growth had a negative relationship with stock price volatility and there was a positive relationship observed between the pay-out ratio and the stock price volatility.

Adefila, Oladipo and Adeoti (2004) in a study titled; The Effect of Dividend Policy on the Market Price of Shares in Nigeria: Case Study of Fifteen Quoted Companies concluded that the dividend policy per se do not affect the value of firms as share price fixing is regulated by the Security and Exchange Commission (S.E.C) in respect of the quoted companies.

A number of local studies in the area of dividend policy and dividend pay –out ratio have been undertaken in Kenya. Nyagaka (2012), using a correlation study as his research design, found out that there is a weak relationship between dividend payout ratio and market value in a study aimed at establishing the relationship between the dividend pay-out ratio and market value of companies listed at NSE. The researcher suggested use of other analytical models and techniques in interrogating this relationship in future studies. Aduda and Kimathi (2011) sought to test the applicability of Constant Dividend Model on companies listed at the Nairobi stock exchange. The study revealed that relationship between the stock market prices and the dividend paid from the constant dividend model is uneven from one year to another and where there was a relationship it was insignificant. These studies have generated inconclusive empirical evidence on the exact relationship between dividend pay-out ratios of a firm and its share prices.

From both the global and domestic perspectives the impact of changes in a firm's dividend pay-out ratio on the firm's share prices is still unresolved. Considering that dividend decisions remains a fundamental area in financial management this equation needs to be continually researched in order to explore any emerging trends.

The key question still remains; Is there a cause-and-effect relationship between the dividend pay-out ratio of a company and the resultant value of the company's shares?

1.3   Research Objectives

To establish the relationship between dividend pay-out ratio and the value of shares of firms listed at the Nairobi Securities Exchange.

1.4   Value of the Study

This study aims at determining the effect of changes in the dividend pay-out ratio on the value of shares for companies listed at the Nairobi Securities Exchange. The results obtained from the research are expected to be of benefit to both scholars in finance and financial management practitioners in Kenya.

Firstly the knowledge obtained from this study will be important in helping finance managers in crafting appropriate dividend policies in general and dividend pay-out ratios in particular. This is critical for finance managers of the respective firms since they are called upon to maximize shareholders which are represented reflected by the firm's share prices.

Secondly the results from the study are expected to validate the applicability of the bird in hand theory and information signaling dividend theory in Kenya. The two theories are widely used in teaching dividend decisions in corporate finance theory.

Thirdly, the results from the study would help government regulatory agencies including the Central Bank of Kenya (CBK) and the Capital Markets Authority (CMA) in developing a regulatory framework that facilitates suitable dividend policies for the respective firms.

Investors will be more knowledgeable on how dividends could influence the market price of shares. This knowledge will inform the investors' decisions as they plan their investment portfolios with a view of attaining wealth maximization.

Financial advisors and analysts will also benefit from the findings of this study. The knowledge generated will improve the investment advice that they give to their clients. Since share price is the critical variable in the shareholder wealth maximization concept, their clients will benefit from understanding the influence of dividend policies on the value of a company's shares.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A lot of research has been carried out on the effect of a firm's dividend policy on its value of shares. Several studies have attempted to answer this question with largely inconclusive results. This section details theories and studies that attempt to explain the relationship between dividend and the value of the firm. Empirical findings from past studies have also been included to provide an academic reference point for this study.

2.2 Theories on Dividend

2.2.1 Bird in Hand Theory

This theory was developed by Gordon M (1963) as a response to Modigliani and Miller's dividend irrelevance theory. The theory suggests that investors are generally risk averse and attach more risk to promised future dividends and capital gains than to current dividends. Thus currents dividends (Bird in the Hand) reduce investor uncertainty and results in higher value in the firm's stock.

This theory holds that investors prefer the "bird in the hand" of cash dividends rather than the "two in the bush" of future capital gains. Increasing dividend payments, ceteris paribus, may then be associated with increases in firm value (Al-Malkawi, Raffert and Pillai, 2010).

As a higher current dividend reduces uncertainty about future cash flows, a high payout ratio will reduce the cost of capital, and hence increase share value. In effect therefore a high dividend payout ratio maximizes a firm's value (Aduda and Kimathi, 2011).

2.2.2 Information Content or Signaling Theory

Ross (1977) observed that there is a strong association between dividend payment and share prices. The theory states that investors regard dividends as signals of managements forecast of earnings. If, for instance, investors expect a company's dividend to increase by 5%, then the stock price generally will not change significantly on the day the dividend increase is announced. If however, investors expect an increase of 10% but the company actually increases the dividend by 20%, this generally would be accompanied by an increase in stock price. Conversely, a less than expected dividend increase, or a reduction, generally would result in a price decline. It is well known that firms are usually reluctant to reduce dividends and, therefore, managers do not raise dividends unless they anticipate higher or at least stable earnings in the future to sustain higher dividends.

This, therefore, means that a larger than expected dividend increase is taken by investors as a signal that the firm's management forecast improved earnings in the future, whereas a dividend reduction signals a forecast of poor earnings. Thus, it can be argued that investors' reaction to changes in dividend payments do not show that investors prefer dividends to retained earnings; rather, the stock price changes simply indicate that important information is contained in the dividend announcements. In effect dividend announcements provide investors with information previously only known to management.

Modigliani and Miller (MM) argued that investors' reaction to a change in dividend policy does not necessarily show that investors prefer dividends to capital gains, rather the fact that a price change follows a dividend action, simply indicates that there is important information or signaling content in the dividend announcement.

2.2.3   Dividend Irrelevance Theory

Miller and Modigliani (1961) argued that dividend policy has no effect on either the value of a firm or its cost of capital. MM stated that dividend policy is irrelevant and that the value of the firm is determined by its basic earnings power (cash flows) and its risk class (cost of capital).The manner in which the earnings and dividend is split does not affect its value. Miller and Modigliani (MM) showed that under perfect market conditions, a firm's value is decided by its investments and not on dividends and they demonstrated that under a particular set of assumptions, if a firm pays high dividends then it might have to issue new stocks to new investors and the share of the value the company gives up to the new investors is exactly equal to the dividends payable. MM argued further that investors are able to replicate any dividend stream that a firm is able to pay. If dividends are lower than desired an investor can simply sell some of the shares of stock and obtain the desired cash distribution.

MM continued to explain that in case the dividends are higher, an investor can use the excess dividends to purchase additional shares in the company. Investors are able to manufacture homemade dividends which are perfect substitutes for corporate dividends. For a corporate decision to have value, the firm must be able to do something for the shareholders that they are unable to do for themselves. Since investors can manufacture

homemade dividends which are perfect substitutes of corporate dividends, then dividend policy is irrelevant.

2.3   Determinants of Share Value

According to Muigai (2012) a company's share price fluctuates from day to day where the magnitude of such fluctuations depends on the economic factors affecting the company. These factors may be either internal to the company or from the general macroeconomic environment like levels of inflation, monetary policies and social-political factors among others. These factors do influence forces of demand and supply. Other factors that influence share prices are industry and company specific. Industry specific factors are those that may cause instability in an industry. For instance the financial market being affected by high inflation conditions that lead to high interest rates precipitating a credit crunch. This may cause apprehension in the market that would reflect in the drop in share prices. Company specific factors that have an influence on the share prices of a company may include earnings per share, dividends per share, reported results whether positive or negative, investment and financing decisions of the firm and profit and dividend payment announcements, among others.

2.4   Empirical Studies

Kapoor (2009) sought to establish the impact of dividend policy on shareholder's value for firms in India. The focus was sampled firms from three sectors namely Information Technology, Fast Moving Consumer Goods and Services sectors. The period covered was from 2000 to 2008.

The researcher used various models, tools and techniques including Lintner model, factor analysis and quadratic polynomial regression analysis to carry out the research. The study found that there are sectoral differences in corporate dividend policy determinants. A factor which may be relevant for one industry becomes irrelevant for another depending upon the Industry characteristics like growth phase, ownership pattern, size, systematic risk and earnings variability.

Gordon (1959) suggested that there were three possible hypotheses for why investors would buy a certain stock. First to obtain both dividends and earnings second, to obtain dividends, and finally to get the earnings. He examined these hypotheses by estimating different regression models using cross section sample data of four industries (chemicals, foods, steels, and machine tools) for two years 1951 and 1954. The number of corporations chosen for each industry were chemicals, 32; food, 52; steel, 34 and machine tools; 46. The dividend hypothesis was tested using a linear regression. In his conclusion Gordon found that dividends have greater influence on share price than retained earnings. In addition, he argued that the required rate of return on a share increases with the fraction of retained earnings because of the uncertainty associated with future earnings.

Profilet and Bacon (2013) conducted a research on dividend policy and stock price volatility in the U.S. equity capital market. The purpose of the study was to identify the impact of certain financial variables on the stock price volatility. A sample of 500 publicly traded firms was taken to explain the results. Price volatility is taken as dependent variable and dividend yield and pay-out ratio are taken as independent variables. The ordinary least square multiple regression was used to find the results.

The results revealed that leverage and growth had a negative relationship with stock price volatility and there was a positive relationship observed between the pay-out ratio and the stock price volatility.

Gul, et al (2012) investigated the relationship between dividend policy and shareholder wealth in Pakistan. For this purpose they used sample of 75 listed companies and data collected from State Bank of Pakistan and Karachi Stock Exchange 100 index for period of 2005 to 2010. Shareholder Wealth dependent variable measured by market price per share and dividend policy independent variable measured by dividend per share and multiple regression and stepwise regression model used in this research for data analysis. The result of this study revealed that dividend policy has a significant influence on shareholder wealth as far as dividend paying companies are concerned and also found difference in average market value relative to book value of equity is high between dividend paying companies and non-dividend paying companies.

Ajanthan (2013) conducted a study whose purpose was to find out the relationship between dividend pay-out and firm profitability among listed hotels and restaurant companies in the Colombo Stock Exchange (CSE). Regression and correlation analysis were carried out to establish the relationship between dividend pay-out and firm profitability. The findings indicated that dividend pay-out was indeed a crucial factor affecting firm performance (R = 0.725 and R2 = 0.526). Their relationship was also strong and positive. This therefore showed that dividend policy was relevant.

Ajanthan concluded, based on the findings of this research that dividend policy is relevant and that managers should pay attention and devote adequate time in designing a dividend policy that will enhance firm profitability and therefore shareholder value.

Adefila, Oladipo and Adeoti (2004) conducted a study titled; The Effect of Dividend Policy on the Market Price of Shares in Nigeria: Case Study of Fifteen Quoted Companies. The study aimed at examining the possible effects of a firm's dividend policy might have on the market price of its common stock between the years 1990 and 1999. The methodology adopted was Pearson's Product Moment Correlation to evaluate the data collected from the fifteen studied companies. The study revealed that dividends affect the demand for share price and subsequently the value of the firms. However, the dividend policy per se do not affect the value of firms as share price fixing is regulated by the Security and Exchange Commission (S.E.C) in respect of the quoted companies.

In a related study Aduda and Kimathi (2011) sought to test the applicability of Constant Dividend Model on companies listed at the Nairobi stock exchange. Data was collected from annual reports and share price schedules obtained from Nairobi stock exchange and Capital market Authority for a sample of 18 companies that paid dividends consistently from 2002 to 2008. The data was then analyzed by re-computing the dividends that should have been paid if the dividend constant model was applied. This recomputed figure was later compared to the dividends as paid out by the companies during the period of study. Paired sample t-test statistic was performed to determine whether there is a significant difference between the two dividend figures.

The findings of the research established that the dividend model was not employed by the companies listed at the Nairobi stock exchange. The study shows that the relationship between the stock market prices and the dividend paid from the constant dividend model is uneven from one year to another and where there was a relationship it was insignificant.

Mokaya, Nyang'ara and James (2013) conducted a study whose purpose was to determine the effects of dividend policy on the market share value in the banking industry in Kenya, using a case study of National Bank of Kenya. The study adopted an explanatory research design. This study covered a sample of 100 respondents selected through proportionate stratified sampling from a total population of 47,000 general public shareholders. A structured, self-administered questionnaire was used to collect data from the respondents. Market share value was designated as the dependent variable and dividend policy is the independent variable. Descriptive and inferential statistics were used to determine and explain variable's relationships. The study concluded that National Bank of Kenya (NBK) had a dividend policy and this dividend policy is the major factor driving NBK share value. The study revealed that the dividend policy has been and continues to be an important factor driving NBK share value as supported by 80% of the respondents. 90% of the respondents pointed out that they considered payment of dividends a major element in the value of shares, meaning that an increase in a dividend pay-out causes an increase in share price as supported by 88% of the respondents.

Murekefu and Ouma (2012) conducted a study whose general objective was to establish the relationship between dividend payout and firm performance among listed companies in Kenya. The study was done for the 41 companies listed in Nairobi Securities Exchange.

Regression analysis was used to determine the relationship between dividend payout and firm performance. Dividends paid, total assets and revenue were the independent variables while the net profit margin was the dependent variable.

They concluded that dividend payout was a major factor affecting firm performance and that this relationship is strong and positive. He further added that dividend policy is relevant and therefore affects the performance of a firm hence its value contrary to theories that view dividend policy as irrelevant.

Nyagaka (2012), using a correlation model as his research design, conducted a research on whether any relationship exists between the dividend pay-out ratio and market value of companies listed at NSE. The target population was all quoted companies at the NSE with regular dividend pay-out behavior, for the 8 years i.e. 2004 to 2011.With the help of correlation study as a research design, 30 firms listed consistently at NSE including those listed within the years and regularly paid dividends to their shareholders were considered. Secondary data was used which was extracted from published financial statements as published in the NSE 2012-2013 Handbook, which was analyzed using excel worksheet with focus on correlation model and was presented using tables. The findings of the study revealed that there is a weak relationship between dividend payout ratio and market value. He suggested use of other analytical models and techniques in interrogating this relationship in future studies.

2.5　Summary of the Literature Review

From a review of the various research studies there is no consensus on the nature of relationship between dividend policies and the value of the firm. At the global level various researchers have found some evidence that there is a strong and direct relationship between dividend pay-out ratios of a firm and its share prices. This is explained through the bird in hand and information signaling theories.

On the other hand the dividend irrelevance theories conclude that there is no direct relationship between a firm's dividend policy and the value of its shares. Kapoor (2009) concluded that there are sectoral differences in corporate dividend policy determinants in a study aimed at establishing the impact of dividend policy on shareholder's value for firms in India. These mixed results show that the nature of relationship between dividend pay ratios and the market share prices is not fully agreed on. There is need for further study on this topic with a focus on different sectors and economies of the world in order to obtain more information for a greater understanding of this key pillar of corporate finance.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter highlights the research design that the researcher will use, the population from which a sample of the firms listed on Nairobi Securities Exchange will be chosen, sampling frame and technique applied, data collection and analysis method that will be run on the data collected.

3.1   Research Design

The research design is explanatory since the study seeks to establish the relationship between dividend pay-out ratio and value of shares. The study will utilize secondary data on the selected companies from the NSE website and the various corporate websites. Audited financial statements for the selected firms will also be used for enhanced reliability and validity of the study's findings and conclusion.

3.2   Population

The population of NSE listed firms as at August 2014 stands at 61 as shown on Appendix 2. The listed firms are classified under different segments namely agricultural, automobiles and accessories, banking, commercial and services, construction and allied, energy and petroleum, insurance, investment, manufacturing and allied, telecommunication and technology, and growth enterprise market segment. This is the target population from which the sample for testing the relationship between dividend pay-out ratio and value of shares will be chosen.

3.3 Sampling Size and Procedures

The sample is the 20 listed firms whose share prices are used to compute the NSE's 20 Share Index as at August 2014. As shown on Appendix 3 these firms are selected from the various segments that are represented at the Exchange. These firms are fairly representative of the different sectors of the economy and thus are a reasonable sample.

3.4 Data Collection

This study used secondary data. The share prices, dividend pay-out ratios and total assets values were largely obtained from the NSE 2012-2013 Handbook. This information was supplemented with the audited financial statements for the selected firms between 2009 and 2013. Additional information on the share prices was obtained from the NSE daily price list schedules. The five year period was deemed long enough to address any events which could affect the trends and relationships in a particular year.

3.5 Data Analysis

Data analysis was aimed at establishing the relationship between the firms' dividend pay-out ratios and the share prices over the five year period. Regression analysis was used in the data analysis, with an objective of testing any existing relationships or interdependence between the two variables, the independent variable (dividend pay-out ratio) and dependent variable (value of shares).

3.5.1 Analytical Model

A multivariate regression model was used to link the independent variables to the dependent variables as follows;

$$Y = \beta_O + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu$$

Where;

Y= Value of shares,

X1=Dividend pay-out ratio,

X2=Growth in earnings,

X3=Value of assets of the firm,

β_O= Constant term,

$\beta_i i = 1 \ldots 3$ measures of the sensitivity of the dependent variable (Y) to unit change in the predictor variables X_1, X_2 and X_3, and

μ = is the error term which captures the unexplained variations in the model.

Value of shares will be as quoted on the NSE.

Dividend pay-out ratio will be computed as follows;

$$\frac{\text{Dividend per share}}{\text{Earnings per share}}$$

Growth in earnings will be calculated as follows;

$$\frac{\text{Earnings in year}_t - \text{Earnings in year}_{t-1}}{\text{Earnings in year}_{t-1}}$$

Value of assets of the firm will be obtained from the audited financial statements of the sampled companies.

Test of significance

In this study, the level of significance will be 5% which means that all statistical tests will be done and compared against the 5% level of significance.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.0 Introduction

In this chapter, the data collected during the research was analyzed and the results from the analysis process reported. This study was executed to achieve the stated research objectives outlined in Chapter 1. Both descriptive statistics and inferential statistics were presented.

4.1 Trend Analysis

The study first found it necessary to determine the trend of share prices for the year 2009-2013. This was to determine the overall share price performance of the 20 listed firms whose share prices are used to compute the NSE's 20 Share Index. The findings were as illustrated in figure 4.1 below.

Figure 4.1: Share Price Trend _Year 2009 to year 2013
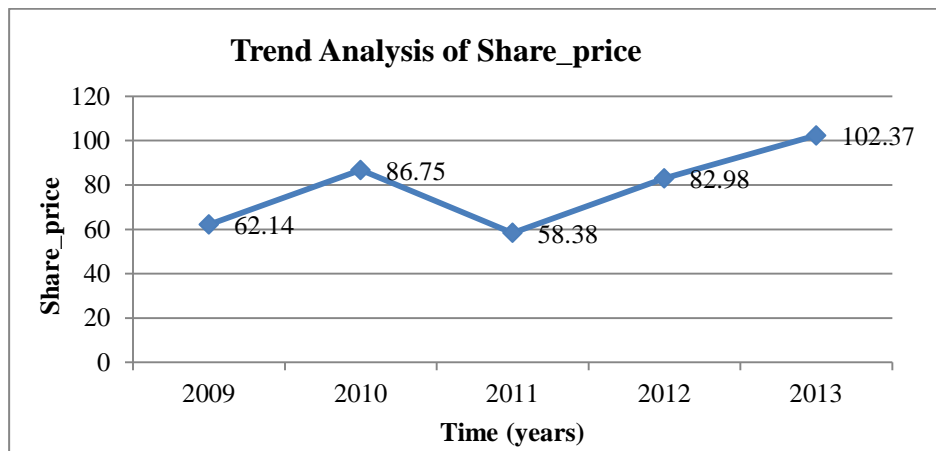
 (Source: Research data)

From the graph, it is construable that between 2009 and 2010 the share prices showed an upward trend from Kshs. 62.14 to Kshs.86.75. From 2010 the prices reflect a downward trend from Kshs.86.75 to Kshs.58.38 but after that period, the trend goes upward from Kshs.58.38 in 2011 to a peak of Kshs.102.37 in 2013 as shown in the graph above.

Figure 4.2: Dividend Pay-out Ratio Trend _Year 2009 to year 2013
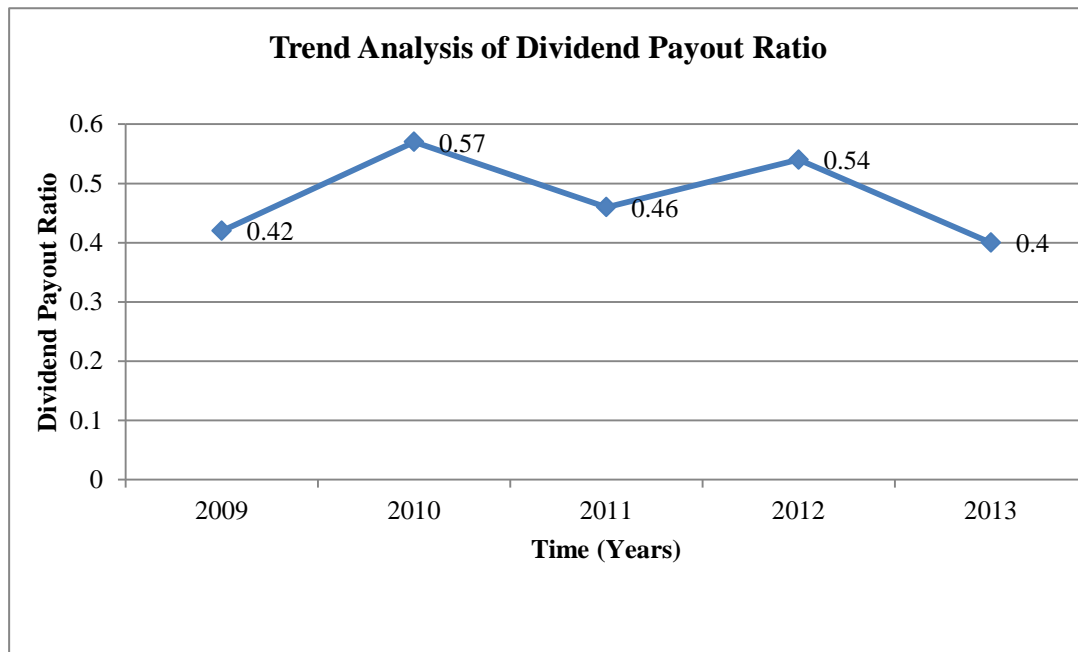
(Source: Research data)

The study further determined the trend of the dividend pay-out ratios under the study from 2009-2013 shown in figure 4.2 above. The analysis has established that the average dividend pay-out ratios increased from 42% in 2009 to 57% in 2010. The year 2011 witnessed a drop to 46% followed by increase to 54% in 2012. There was a marked decrease between 2012 and 2013 from 54% to 40%.

Figure 4.3: Total assets Trend _Year 2009 to year 2013
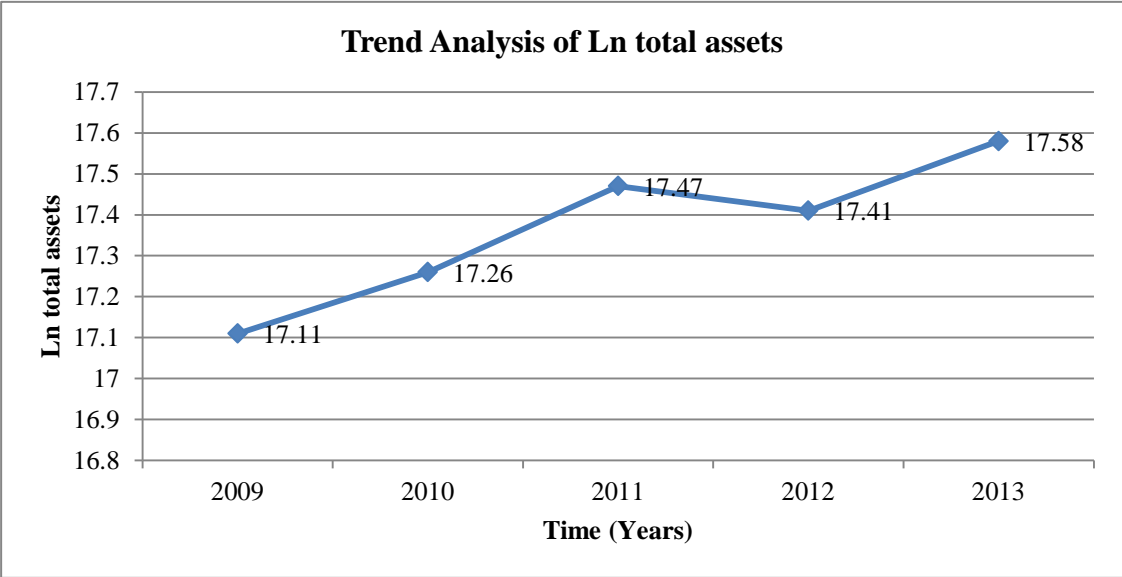
(Source: Research data)

The study also determined the trend of the value of the total assets for the selected companies between 2009 and 2013. The results in figure 4.3 indicate that there was a witnessed a gradual rise in total assets between the year 2009 to the year 2011 from 17.11 to 17.47. Between the year 2011 and 2012, there was a slight drop from 17.47 to 17.41 while between the year 2012 and 2013 there was an increase from 17.41 to 17.58.

Figure 4. 4: Growth in earnings Year 2009 to year 2013.
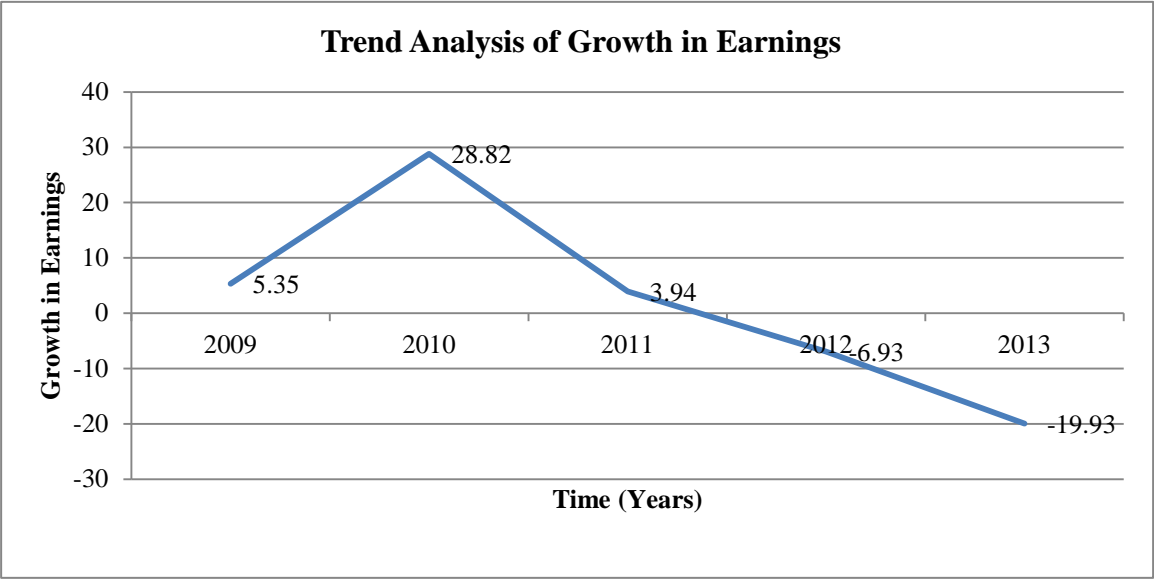
(Source: Research data)

The study also determined the trend of the growth in earnings from 2009 to 2013 as indicated in figure 4.4 above. The mean analysis has established that there was an increase in growth in earnings between 2009 and 2010 from 5.35% to 28.82% while between the year 2010 to 2011 there was a decline from 28.82% to 3.94%, a further decline from 3.94% to -6.93 % between the year 2011 and 2012 and even further decline from -6.93 % to -19.93% between the year 2012 and 2013 as shown in the figure.

4.2 Descriptive Statistics

Table 4.1: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Share_price (KShs)	100	3.00	600	78.28	109.324
Dividend_pay-out_ratio (%)	100	0.00	3.00	0.48	0.42500
Ln total assets (KShs billion)	100	13.00	20.00	17.37	1.65200
Growth in Earnings (%)	100	-716.00	594.00	2.350	131.567
Valid N (listwise)	100				

(Source: Research data)

The descriptive results in table 4.1 above give further details of the study. The mean, minimum, maximum and the standard deviation are given. The average share price over the 5 years was Ksh 78.28. The maximum share price was Ksh 600.00 and the minimum share price was Ksh 3.00.The average dividend pay-out ratio over the 5 years was 0.48%. The maximum dividend pay-out ratio was 3.00 % and the minimum dividend payout ratio was 0.00 %. The average value for the total assets was Ksh 17.37 billion , while the maximum total assets was Ksh 20.0 billion and the minimum total assets was Ksh 13.00 billion. The average of the growth in earnings over the 5 year period was 2.35% while the maximum was 594% and the minimum was a decrease by 716%.

4.3 Analytical Model

This section presented the correlation and regression analysis results for the study. The correlation analysis which showed the direction of association of the variables and their level of significance was presented first.

4.3.1 Correlation Analysis

Correlation analysis is a statistical tool generally used to describe the degree to which one variable is related to another Mugenda and Mugenda (2003). The relationship, if any, is usually assumed to be a linear one. Correlation analysis was conducted to reveal the direction of association of the variables. The correlation analysis results are presented in table 4.2 below.

Table 4.2: Correlation Results

		Share_price	Dividend_pay-out_ratio	Ln total assets	Growth in Earnings
Share_price	Pearson Correlation	1	.459[**]	-.011	.084
	Sig. (2-tailed)		.000	.910	.407
	N	100	100	100	100
Dividend_pay_out_ratio	Pearson Correlation	.459[**]	1	.150	.062
	Sig. (2-tailed)	.000		.135	.542
	N	100	100	100	100
Ln total assets	Pearson Correlation	-.011	.150	1	.087
	Sig. (2-tailed)	.910	.135		.391
	N	100	100	100	100
Growth in Earnings	Pearson Correlation	.084	.062	.087	1
	Sig. (2-tailed)	.407	.542	.391	
	N	100	100	100	120

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

(Source: Research data)

Results in table 4.2 above reveal that the correlation between share price and dividend pay-out ratio is positive and significant (R=0.459, p value=0.000). This implies that an increase in share price is associated with an increase in dividend pay-out ratio and a decrease in share price is associated with a decline in dividend pay-out ratio. Findings also show that correlation between share price and Ln total assets was negative and insignificant (R=-0.011, p value=0.910). This implies that an increase in Ln total assets is associated with a slight decrease in share price and a decrease in Ln total assets is associated with a slight increase in share prices. Study findings show that correlation between share price and growth in earnings was positive and insignificant (R=0.084, p value=0.407). This implies that an increase in growth in earnings is associated with an increase in share price and a decrease in growth in earnings is associated with a decline in share price.

4.3.2 Regression Analysis: Value of Shares

Table 4.3: Goodness of fit (Coefficient of Determination)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.503^a	.253	.213	104.476	.811

a. Predictors: (Constant), LAGS(Dividend_pay_out_ratio,1), Ln total assets, Growth in Earnings, Dividend_pay_out_ratio
b. Dependent Variable: Share_price

Regression analysis results presented in table 4.3 above indicate a coefficient of determination (R squared) of 0.253. An R square of 0.253 indicates that 25.3% of the variation in value of shares is explained by the independent variables (dividend pay-out

ratio, value of assets of the firm and growth in earnings). 74.7% of the variations in value

of shares are explained by other factors not included in the model.

Table 4. 4: Overall Model Significance

ANOVAª

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	276,676.732	4	69,169.183	6.337	.000[b]
Residual	818,640.848	75	10,915.211		
Total	1,095,317.580	79			

a. Dependent Variable: Share_price
b. Predictors: (Constant), LAGS(Dividend_pay_out_ratio,1), Ln total assets, Growth in Earnings, Dividend_pay_out_ratio

Results in table 4.4 above presents the overall model significance. The results indicate

that the overall model was significant. The reported F statistic of 6.337 in table 4.4 was

larger than the F critical (F tabulated). The reported p value was lower than the critical p

value of 0.05. The findings imply that the independent variables are good joint predictors

of value of shares.

4.3.3 Regression Analysis: Share Price

The results from the regression analysis are presented on table 4.5 below.

Table 4.5: Regression Coefficients

Coefficients[a]

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1 (Constant)	146.081	124.053	1.178	.243
Dividend pay-out ratio	100.752	26.963	3.737	.000
Ln total assets	-8.294	7.183	-1.155	.252
Growth in Earnings	.006	.084	.073	.942
LAGS(Dividend_pay_out_ratio,1)	63.285	28.541	2.217	.030

a. Dependent Variable: Share price

The regression coefficients and their associated t statistics and p values are presented in table 4.5 above. The results indicated that there is a positive and significant relationship between dividend pay-out ratio and share price. This finding was supported by a regression coefficient of 100.752 (p value =0.000). The reported p value was less than the critical p value of 0.05. A regression coefficient of 100.752 implies that an increase in dividend payout ratio by one unit causes an increase in share price by 100.752 units. The results indicated that there is a negative and insignificant relationship between Ln total assets and share price. This finding was supported by a regression coefficient of -8.294 (p value =0. 252).

The reported p value was more than the critical p value of 0.05. This implies that the Ln total asset has no significant effect on share price. The results also indicated a positive and insignificant relationship between growth in earnings and share price. This finding was supported by a regression coefficient of 0.006 (p value =0.942). The reported p value was more than the critical p value of 0.05.

This implies that the growth in earnings has no significant effect on share price. Taking into account the computed coefficients above, the derived multivariate regression model linking the independent variables to the dependent variables is as follows;

Y=146.081 + 100.752 Dividend pay-out ratio – 8.294 Total assets + 0.006 Growth in earnings + 63.285 Dividend pay-out ratio $_{t-1}$

4.4 Discussions

The results show that the correlation between share price and the dividend pay-out ratio is positive and significant (R=0.459, p value=0.000). This implies that an increase in share price is associated with an increase in dividend pay-out ratio and a decrease in share price is associated with a decline in dividend pay-out ratio. Findings also show that correlation between share price and Ln total assets was negative and insignificant (R=-0.011, p value=0.910. This implies that an increase in Ln total assets is associated with a decrease in share price and a decrease in Ln total assets is associated with an increase in share price. Study findings also show that correlation between share price and growth in earnings was positive and insignificant (R=0.084, p value=0.407).

This implies that an increase in growth in earnings is associated with an increase in share price and a decrease in growth in earnings is associated with a decline in share price. The findings agree with those in Gordon (1959), Murekefu and Ouma (2012), Mokaya, Nyang'ara and James (2013) and Adefila, Oladipo and Adeoti (2004) who noted a positive and significant correlation between share price and dividend payout ratio. The authors argue that dividends affect the demand for share price and subsequently the value of the firms.

Regression results indicate that there is a positive and significant relationship between dividend pay-out ratio and share price. This finding was supported by a regression coefficient of 100.752 (p value =0.00). The reported p value was less than the critical p value of 0.05. A regression coefficient of 100.752 implies that an increase in dividend pay-out ratio by one unit causes an increase in share price by 100.752 units. The findings agree with those in Profilet and Bacon (2013) who a positive relationship between the dividend pay-out ratio and the stock price volatility.

The results indicate that there is a negative but insignificant relationship between Ln total assets and share prices. This finding was supported by a regression coefficient of -8.294 (p value =0.252).The reported p value was more than the critical p value of 0.05. A regression coefficient of -8.294 implies that an increase in total assets by one unit causes a decrease in share prices by 8.294 units. In addition, the results indicated a positive and insignificant relationship between growth in earnings and share price. This finding was supported by a regression coefficient of 0.006 (p value =0.942). The reported p value was more than the critical p value of 0.05. This implies that the growth in earnings has no significant effect on share price.

4.5 Chapter Summary

The chapter presented the findings from the data analysis process which focused on determining the nature of relationship between the share prices and dividend pay-out ratios of the selected companies. The findings indicate that there is a positive and significant relationship between dividend pay-out ratio and share prices. There was also a positive relationship between growth in earnings and share prices.

There was a negative relationship between total assets and share prices. No significant relationship exists between share prices and the value of total assets and share prices. The findings of this chapter were useful in making summary and conclusion in chapter five.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND

RECOMMENDATIONS

5.1 Summary of Findings

Chapter One gave an overview of the significance of dividend policy on the value of shares of firms across all industries of an economy, discussed the problem statement and presented the objective of the study**.** The main problem was that the effect of dividend policy on a firm's value has remained a puzzle in corporate finance for several decades. Various studies have not been able to conclusively determine the relationship between dividend pay-out ratios and the resultant value of shares. So, the empirical problem was whether there was a cause-and-effect relationship between the dividend pay-out ratio of a company and the resultant value of the company's shares. The objective of the study was therefore to establish the relationship between dividend pay-out ratio and the value of shares of firms listed at the Nairobi Securities Exchange.

Chapter Two gave a brief review of theories that inform the study. Three theories; Bird in Hand Theory, the Information Content or Signaling Theory, and the Dividend Irrelevance Theory were useful in informing the theoretical framework of this study. The empirical literature was also reviewed so as to establish the research gap. The review indicated that there existed differing opinions, both at global and local levels, on the relationship between a firm's dividend pay-out ratio and the value of its shares.

Chapter Three outlined the research methodology of the study. An explanatory research design was chosen and secondary data was used for analysis. An analytical model linking value of shares to dividend pay-out ratio, growth in earnings and total value of assets of the firm was formulated. Descriptive statistics and inferential statistics were used for analysis. Regression and correlation analysis were the main inferential techniques used for analysis. Descriptive results in chapter four indicate that there has been a gradual rise in the average share prices. The trend analysis of dividend pay-out ratio during the study period of five years shows a fluctuating pattern. Dividend pay-out ratios are guided by a firm's overall dividend policy which might be revised periodically.

Correlation results in Chapter four shows that the correlation between share prices and dividend payout ratio is positive and significant, correlation between share prices and value of total assets was negative and insignificant. Finally, correlation between share prices and growth in earnings was positive but insignificant. This indicates that the primary variables move in the same direction.

Regression results indicate that there is a positive and significant relationship between dividend pay-out ratio and share prices. The results also indicate that there is a positive and insignificant relationship between value of growth in earnings and share prices. The results also show a negative and insignificant relationship between share prices and total assets. This implies that there is a positive causal relationship between dividend pay-out ratio and value of shares of the firms used to formulate the NSE 20 share index.

5.2 Conclusions

The objective of this study was establishing the relationship between the dividend pay-out ratios and share values of companies listed at the NSE in Kenya. All the 20 firms whose shares are used to compute the NSE's 20 share index firms were used for testing this relationship. Based on the foregoing discussion, the following conclusions can be drawn from the study.

Dividend pay-out ratio affects the value of shares of a firm in the long run and that this relationship is significant and positive. It therefore shows that dividend policy is relevant and therefore affects the share price of a firm hence its value contrary to theories that view dividend policy as irrelevant. Results also revealed that the lag of dividend pay-out ratios has a significant relationship with the share value. Control variables such as total assets and growth in earnings have a negative relationship and positive relationship respectively with the share value. However, their relationship is insignificant. Therefore, any change in these variables may not influence the share value.

The study concluded that the major factors that affect the value of shares of listed firms are; dividend pay-out ratio and the lag of dividend pay-out ratios. Other factors such as total assets and growth in earnings have no significant relationship with the value of shares of a firm. Therefore, firms should put in place effective strategies to ensure a high score on dividend stability which will contribute to better share value in the future.

5.3 Recommendations

The study makes a number of recommendations in light of the study findings. First, investors who invest in stocks for short term or long term purposes need to take into account dividend pay-out ratios when investing in shares. This is because a higher dividend pay-out leads to a higher share price. Therefore, investors should include counters with high dividend payout in their portfolios. Such a portfolio would increase the value of the investors wealth. In addition, investors should take into account previous dividend pay-out ratios when structuring their portfolio. Companies who need to show an increase in share price are also advised to declare high dividends for any given level of earnings. Such an action will be interpreted positively by investors and this will boost demand for the shares. Hence share prices will rise.

5.4 Limitations of Study

No study however precise is without limitations. There exist imminent flaws as far as the accuracy of the data is concerned. The secondary data used in the study was largely obtained from the NSE 2012-2013 Handbook and the researcher is alert to the possibility of errors in gathering, formulating and presenting the data.

The study was restricted to firms listed at NSE and concentrated on the firms whose share prices are used to compute the NSE's 20 Share Index. The trends and relationships between the study variables for unquoted firms might be different from the ones for the sample used in the study. Therefore the findings of this study should not be generalized to the findings of other firms whose characteristics differ from sample selected.

The study encountered limitations in that various companies have different financial year-ends i.e.; March, June, September and December. The variability of such macro-economic considerations like interest rates and inflation across the year might have reasonable influences on share prices at the NSE. These periodical influences thereby limit the accuracy of the analysis which involves comparison of the stocks prices.

The study only focused on 5 years (year 2009 to year 2013). It is feasible that there are a variety of factors like economic boom, terrorism, trade laws and practices that can influence the economic and political environment for a period of five years and even longer. The pattern of such environmental factors might influence the findings of a study conducted over a short span of time. Perhaps using a longer time series would have yielded different trends and results. One may therefore ask, do the relationships apply over a 20 year span period?

Dividend pay-out ratios are computed from earnings per share which being an accounting figure could be exposed to possibility of manipulation by the firms in order to evade payment of taxes or to influence the performance of the firm.

Another limitation for the study was the potential influence of changes in share structures for the different companies over the period of the study. Share splits, rights issue and bonus shares which affect the number of a company's issued shares might lead to variation in a company's share price.

The study also did not also put into consideration a comprehensive list of other moderating variables that could have affected the value of shares as part of study. Perhaps, a dummy for capital structure and another one for tax effect would have added and improved the explanatory power of the model. The inclusion of such control variables would assist in refining the nature of relationship between dividend pay-out ratios and share prices much further.

5.5 Areas for Further Study

The researcher advocates that further studies should be conducted to identify and analyze the effect of other moderating variables that have a potential influence on the relationship between dividend pay-out ratio and share prices of a firm. Such factors include capital structures, investment plans and quality of strategic plans. It is suggested that future studies should include dummies for improving the explanatory power of the model linking share prices to the independent variables. Such dummies may include; a dummy for firm size and capital structure and another one for tax effect.

The study also recommends an inclusion of other public limited companies in Kenya not listed at the NSE and those that were omitted from the sample though have been listed at the NSE. Further, research also should be done to establish how non-numerical variables should be integrated in such a study of firms listed on the NSE in Kenya. Studies could also be done on the lagged effect of dividend pay-out ratio on share prices of a firm. Future studies could be designed to determine how long it takes for the effect of dividend payments to reflect on the share prices.

In addition, future studies could be extended to analyze a longer time span, probably 20 to 30 years. This would clarify whether the observed relationship between the value of shares and dividend pay-out ratio changes over the years. Such a study would call for advanced econometric and statistical analysis such as time series analysis.

REFERENCES

Adefila, J. J., Oladipo, J. A., & Adeoti, J. O. (2004). The Effect of Dividend Policy on the Market Price of Shares in Nigeria: Case Study of Fifteen Quoted Companies. *International Journal of Accounting. University of Ado-Ekiti*, *2*(1), 1-10.

Aduda, J. O., & Kimathi, H. (2011). The Applicability of the Constant Dividend Model for Companies Listed at the Nairobi Stock Exchange. *Journal of Financial studies & Research*, *1*, 38.

Ajanthan, A. (2013). The Relationship between Dividend Pay Out and Firm Profitability; A study of Hotels and Restaurant Companies in Sri Lanka. *International Journal of Scientific and Research Publications,* Volume 3, Issue 6, June 2013.

Al-Malkawi, H. A. N., Rafferty, M., & Pillai, R. (2010). Dividend policy: A review of theories and empirical evidence. *International Bulletin of Business Administration*, *9*, 171-200.

Anil, K., & Kapoor, S. (2008). Determinants of dividend pay-out ratios: A study of Indian information technology sector. *International Research Journal of Finance and Economics* 15 (May): 63–71.

Baker, H. K., Veit, E. T., & Powell, G. E. (2001). Factors influencing dividend policy decisions of Nasdaq firms. The Financial Review, 36(3), 19-37. *Journal of Business and Economics*, 38(2), 17-27.

Gordon, M. J. (1959). Dividends, earnings and stock prices. *The Review of Economics and Statistics*, 99-105.

Gordon, M. J. (1963). Optimal Investment and Financing Policy, *Journal of Finance* 18, 264-272.

Gul, S., Sajid, M., Razzaq, N., Iqbal, M. F., & Khan, M. B. (2012). The Relationship between Dividend Policy and Shareholder's Wealth. *Economics and Finance Review*, *2*(2), 55.

Kapoor, S. (2009). Impact of Dividend Policy on Shareholders' Value: A Study of Indian Firms. *Synopsis of the Thesis to be Submitted in Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Management*.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *the Journal of Business*, *34*(4), 411-433.

Mokaya, S. O., Nyang'ara, D. M., & James, L. T. (2013). The Effect of Dividend Policy on Market Share Value in the Banking Industry; the Case of National Bank of Kenya. *International Journal of Arts and Commerce Vol. 2 No. 2* February 2013 edition.

Mugenda, O.M., & Mugenda, A.G. (2003). *Research methods: Quantitative and Qualitative Approaches*. Nairobi: Acts press.

Muigai, J. W. (2012). *The effect of dividend declaration on share prices of commercial banks listed on the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Murekefu, T. M. and Ouma, O. P. (2012). The Relationship Between Dividend Payout And Firm Performance: A Study Of Listed Companies In Kenya ; *European Scientific Journal* May edition vol. 8, No.9.

NSE. Nairobi Securities Exchange 2012-2013 Handbook. NSE publication. *https://www.nse.co.ke/resource-center/publications/category/15-nseh.html*

NSE website. *Nairobi Securities Exchange corporate website*

Nyagaka, J. (2012). The Relationship between Dividend Pay-out Ratio and Market Values of Firms Listed at the Nairobi Securities Exchange. (*A Research Project Report Submitted in Partial Fulfillment of the Requirement for the Degree of Master of Business Administration, University of Nairobi*).

Profilet, K. A., & Bacon, F. W. (2013). Dividend policy and stock price volatility in the US equity capital market. *Behavioral Sciences*, 63.

Ross, S. A. (1977). The determination of financial structure: the incentive-signaling approach. The *Bell Journal of Economics* vol. 8 No.1. 23- 40.

APPENDIX 1- Data Collection Form

A. FIRM PROFILE

1. Name of the Firm……………………………………………………………
2. Year of Listing on NSE……………………………………………………

B. FINANCIAL DATA OF THE SAMPLED FIRMS OVER THE LAST 5 FINANCIAL YEARS

Year/ Variable	2009	2010	2011	2012	2013
Dividend per share (KShs)					
Earnings per share (KShs)					
Dividend pay-out ratio					
Share price (KShs) at year end					
Total assets value (KShs)					

APPENDIX 2- Companies list on NSE as at August 2014

AGRICULTURAL
Eaagads Ltd
Kakuzi
Kapchorua Tea Co. Ltd
Limuru Tea Co. Ltd
Rea Vipingo Plantations Ltd
Sasini Ltd
Williamson Tea Kenya Ltd
AUTOMOBILES & ACCESSORIES
Car & General (K) Ltd
CMC Holdings Ltd
Marshalls (E.A.) Ltd
Sameer Africa Ltd
BANKING
Barclays Bank Ltd
CFC Stanbic Holdings Ltd
Diamond Trust Bank Kenya Ltd
Equity Bank Ltd
Housing Finance Co Ltd
I&M Holdings Ltd
Kenya Commercial Bank Ltd
National Bank of Kenya Ltd
NIC Bank Ltd
Standard Chartered Bank Ltd
The Co-operative Bank of Kenya Ltd
COMMERCIAL AND SERVICES
Express Ltd
Hutchings Biemer Ltd
Kenya Airways Ltd
Longhorn Kenya Ltd
Nation Media Group
Scangroup Ltd
Standard Group Ltd
TPS Eastern Africa (Serena) Ltd
Uchumi Supermarket Ltd
CONSTRUCTION & ALLIED
ARM Cement Ltd
Bamburi Cement Ltd

Crown Berger Ltd
E.A.Cables Ltd
E.A.Portland Cement Ltd
ENERGY & PETROLEUM
KenGen Ltd
KenolKobil Ltd
Kenya Power & Lighting Co Ltd
Total Kenya Ltd
Umeme Ltd
INSURANCE
British-American Investments Co(Kenya) Ltd
CIC Insurance Group Ltd
Jubilee Holdings Ltd
Kenya Re-Insurance Corporation Ltd
Liberty Kenya Holdings Ltd
Pan Africa Insurance Holdings Ltd
INVESTMENT
Centum Investment Co Ltd
Olympia Capital Holdings ltd
Trans-Century Ltd
MANUFACTURING & ALLIED
A.Baumann & Co Ltd
B.O.C Kenya Ltd
British American Tobacco Kenya Ltd
Carbacid Investments Ltd
East African Breweries Ltd
Eveready East Africa Ltd
Kenya Orchards Ltd
Mumias Sugar Co. Ltd
Unga Group Ltd
TELECOMMUNICATION & TECHNOLOGY
Safaricom Ltd
GEMS
Home Afrika Ltd

Source: NSE, 2014

APPENDIX 3- List of NSE 20-Share Index Companies

Company	Segment
1.Rea Vipingo Plantations Ltd	Agricultural
2. Sasini Ltd	Agricultural
3. Express Ltd	Commercial & Allied Services
4. Kenya Airways Ltd	Commercial & Allied Services
5. Nation Media Group	Commercial & Allied Services
6. Barclays Bank Ltd	Banking
7. Kenya Commercial Bank Ltd	Banking
8. Standard Chartered Bank Ltd	Banking
9. British American Tobacco Kenya Ltd	Manufacturing & Allied
10. East African Breweries Ltd	Manufacturing & Allied
11. Mumias Sugar Co.Ltd	Manufacturing & Allied
12. Bamburi Cement Ltd	Construction & Allied
13. Ken Gen Ltd	Energy & Petroleum
14. Kenya Power & Lightning Co.Ltd	Energy & Petroleum
15. Uchumi Supermarket Ltd	Commercial & Allied Services
16. Safaricom Ltd	Telecommunication & Technology
17. Equity Bank Ltd	Banking
18. The Co-operative Bank of Kenya Ltd	Banking
19. Kenol Kobil Ltd	Energy & Petroleum
20. Athi River Mining Cement Ltd	Construction & Allied

Source: NSE, 2014

APPENDIX 4- Data Schedule

Company	Year	Share price	DPS	EPS	Dividend Pay-out ratio	Total_Assets	Profit After Tax	Growth in Earnings
		Kshs	Kshs	Kshs		Kshs '000'	Kshs '000'	%
Rea Vipingo	2009	11.1	0.5	2.48	0.2	1,414,084	148,949	-11.42
Rea Vipingo	2010	17.9	0.8	1.12	0.71	1,707,016	67,355	-54.78
Rea Vipingo	2011	14.75	1.1	7.79	0.14	2,288,740	467,196	593.63
Rea Vipingo	2012	17	1.1	6.34	0.17	2,376,618	380,433	-18.57
Rea Vipingo	2013	28	0	7.37	0.00	2,797,430	442,446	16.30
Sasini Ltd	2009	6.05	0.4	2.34	0.17	7,998,233	533,032	-39.78
Sasini Ltd	2010	13.3	0.5	4.36	0.11	9,060,061	993,729	86.43
Sasini Ltd	2011	12.05	0.8	1.97	0.41	9,462,027	450,347	-54.68
Sasini Ltd	2012	10.95	0.75	-0.3	2.5	8,922,980	-124,113	-127.56
Sasini Ltd	2013	13.3	0.25	0.54	0.46	9,054,366	91,689	173.88
Express Ltd	2009	8.05	0	0.43	0	1,304,116	15,070	134.86
Express Ltd	2010	7.8	0	-0.79	0	1,341,699	-28,091	-286.40
Express Ltd	2011	3.9	0	-6.47	0	766,798	-229,088	-715.52
Express Ltd	2012	3.5	0	0.37	0	495,609	13,028	105.69
Express Ltd	2013	3.9	0	0.01	0	480,525	229	-98.24
Kenya Airways	2009	19.75	1	-8.85	0.11	75,979,000	-4,083,000	-205.53
Kenya Airways	2010	60	1	4.41	0.23	73,263,000	2,035,000	149.84
Kenya Airways	2011	32.25	1.5	7.66	0.2	78,743,000	3,538,000	73.86
Kenya Airways	2012	13.95	0.81	3.6	0.23	77,432,000	1,660,000	-53.08
Kenya Airways	2013	10.95	0	-6.35	0.00	122,696,000	-7,864,000	-573.73
Nation Media	2009	118	5	7.85	0.7	6,572,400	1,119,200	-13.64
Nation Media	2010	167	8	9.79	0.8	7,975,200	1,538,400	37.46
Nation Media	2011	140	8	7.66	1.04	8,816,300	1,203,300	-21.78
Nation Media	2012	222	10	15.98	0.63	10,677,400	2,510,300	108.62
Nation Media	2013	314	10	13.4	0.75	11,444,200	2,533,200	0.91
Barclays Bank	2009	45	2.5	4.49	0.6	164,876,000	6,091,000	10.24
Barclays Bank	2010	62.5	5.45	7.8	0.7	170,876,000	10,599,000	74.01
Barclays Bank	2011	13.05	1.5	1.49	1	165,994,000	8,113,000	-23.46
Barclays Bank	2012	15.75	1	1.61	0.6	184,825,000	8,740,703	7.74
Barclays Bank	2013	17.6	0.70	1.40	0.50	206,736,932	7,622,642	-12.79
KCB Bank Ltd	2009	20.5	1	1.84	0.54	194,777,835	4,083,871	-2.55
KCB Bank Ltd	2010	21.75	1.25	2.76	0.45	251,356,200	7,177,973	75.76
KCB Bank Ltd	2011	16.85	1.85	3.72	0.5	330,716,159	10,981,046	52.98
KCB Ltd	2012	29.75	1.9	4.11	0.46	367,379,285	12,203,531	11.13
KCB Bank Ltd	2013	47.25	2	4.82	0.41	390,851,579	14,341,382	17.52
Standard Bank	2009	161	12	16.45	0.73	123,778,972	4,732,754	45.59
Standard Bank	2010	258	13.5	18.58	0.73	142,746,249	5,376,191	13.60
Standard Bank	2011	160	11	19.28	0.57	164,046,624	5,836,821	8.57
Standard Bank	2012	235	12.5	26.6	0.47	195,352,756	8,069,533	38.25
Standard Bank	2013	304	14.5	29.42	0.49	220,391,180	9,262,921	14.79
BAT Kenya Ltd	2009	178	14.75	14.78	1	10,553,206	1,478,431	-13.05
BAT Kenya Ltd	2010	270	17.5	17.67	0.99	11,121,561	1,767,236	19.53
BAT Kenya Ltd	2011	246	30.5	30.98	0.98	13,750,745	3,097,755	75.29

BAT Kenya Ltd	2012	493	32.5	32.71	0.99	15,176,495	3,270,852	5.59
BAT Kenya Ltd	2013	600	37	37.24	0.99	16,986,000	3,724,000	13.85
EABL Ltd	2009	151	8.05	8.71	0.92	34,546,993	8,262,464	-10.04
EABL Ltd	2010	181	8.75	9.08	0.96	38,218,440	8,837,560	6.96
EABL Ltd	2011	193	8.75	9.31	0.94	49,519,364	9,023,660	2.11
EABL Ltd	2012	227	8.75	13.46	0.65	54,584,316	11,186,113	23.96
EABL Ltd	2013	290	7.75	8.83	0.88	58,556,053	6,944,745	-37.92
Mumias Sugar	2009	6	0.4	1.05	0.38	17,475,715	1,609,972	32.63
Mumias Sugar	2010	12.85	0.4	1.03	0.38	18,081,787	1,572,383	-2.33
Mumias Sugar	2011	7.15	0.5	1.26	0.39	22,927,399	1,933,225	22.95
Mumias Sugar	2012	6.1	0.5	1.32	0.38	27,400,113	2,012,679	4.11
Mumias Sugar	2013	4.2	0	-1.09	0.00	27,148,393	-1,669,716	-182.96
Bamburi	2009	156	11	18.32	0.6	32,112,000	6,970,000	104.28
Bamburi	2010	187	8.5	14.02	0.61	33,306,000	5,299,000	-23.97
Bamburi	2011	125	10	14.45	0.69	33,502,000	5,859,000	10.57
Bamburi	2012	185	10.5	12.17	0.86	43,038,000	4,882,000	-16.68
Bamburi	2013	210	11	9.55	1.15	43,016,000	3,673,000	-24.76
Ken Gen Ltd	2009	14.55	0.5	0.94	0.53	108,603,879	2,070,913	-64.88
Ken Gen Ltd	2010	17.1	0.5	1.49	0.33	150,566,886	3,286,487	58.70
Ken Gen Ltd	2011	13.55	0.5	0.95	0.52	160,993,290	2,080,121	-36.71
Ken Gen Ltd	2012	8.6	0.6	1.28	0.46	163,144,873	2,822,600	35.69
Ken Gen Ltd	2013	15.15	0.6	2.39	0.25	188,673,282	5,250,136	86.00
KPLC Co.Ltd	2009	146	8	40.76	0.20	70,648,425	3,225,094	82.74
KPLC Co.Ltd	2010	200	8	3	2.67	85,025,890	3,716,370	15.23
KPLC Co.Ltd	2011	21.5	0.45	2.16	0.21	121,171,515	4,219,566	13.54
KPLC Co.Ltd	2011	15.1	0.5	2.36	0.21	134,131,983	4,617,116	9.42
KPLCCo.Ltd	2013	14.5	0	2.23	0.00	177,157,755	4,352,165	-5.74
Uchumi	2009	14.5	1.25	2.78	0.13	2,440,418	384,000	7.87
Uchumi	2010	14.5	0	4.81	0.00	3,153,511	865,099	125.29
Uchumi	2011	11.4	0	1.47	0.00	4,004,720	390,425	-54.87
Uchumi	2012	15.9	0.3	1.03	0.29	4,941,888	273,977	-29.83
Uchumi	2013	19.9	0.3	1.35	0.22	5,573,533	357,010	30.31
Safaricom Ltd	2009	3	0.1	0.26	0.38	91,682,324	10,536,760	-23.94
Safaricom Ltd	2010	5.55	0.2	0.38	0.52	104,120,850	15,148,038	43.76
Safaricom Ltd	2011	3.8	0.2	0.33	0.61	113,854,762	13,158,973	-13.13
Safaricom Ltd	2012	3.2	0.22	0.32	0.70	121,899,677	12,627,607	-4.04
Safaricom Ltd	2013	6	0.31	0.44	0.70	128,856,257	17,539,810	38.90
Equity Bank	2009	14.35	0.4	1.14	0.35	100,812,000	4,234,000	8.29
Equity Bank	2010	26.75	0.8	1.93	0.42	143,018,000	7,132,000	68.45
Equity Bank	2011	16.4	0.8	2.79	0.29	196,294,000	10,325,000	44.77
Equity Bank	2012	19.25	1.25	3.26	0.38	243,170,000	12,080,000	17.00
Equity Bank	2013	30.75	1.5	3.59	0.42	277,729,000	13,278,000	9.92
Co-op Bank	2009	8.95	0.2	0.85	0.24	110,678,000	2,968,000	25.02
Co-op Bank	2010	19	0.4	1.31	0.31	154,339,000	4,580,000	54.31
Co-op Bank	2011	12.25	0.4	1.53	0.26	168,312,000	5,366,000	17.16
Co-op Bank	2012	12.6	0.5	1.84	0.27	200,588,000	7,724,000	43.94
Co-op Bank	2013	17.75	0.5	2.2	0.23	231,215,358	9,108,186	17.92
Kenol Kobil	2009	50	3.25	8.8	0.37	29,435,336	1,294,505	12.05
Kenol Kobil	2010	10	0.52	1.3	0.4	30,372,909	1,915,045	47.94
Kenol Kobil	2011	9.95	1	2.22	0.45	45,974,304	3,273,831	70.95

Kenol Kobil	2012	13.55	0	-4.27	0	32,684,166	-6,284,575	-291.96
Kenol Kobil	2013	10.1	0.1	0.38	0.26	28,121,673	558,419	108.89
Athi R mining	2009	111	1.5	6.52	0.23	12,141,091	645,774	28.27
Athi R mining	2010	183	1.75	10.86	0.16	16,564,900	1,075,268	66.51
Athi R mining	2011	158	2	11.61	0.17	20,515,940	1,150,498	7.00
Athi R mining	2012	44.5	0.5	2.52	0.19	26,953,100	1,245,638	8.27
Athi R mining	2013	90	0.6	2.74	0.22	29,705,254	1,348,803	8.28

Source NSE 2012-2013 Handbook