

# The Relationship between Profits and Dividend Payout of Commercial Banks in Kenya

Sifunjo E. Kisaka Hillary Kipnetich Kitur Aloise Mbithi  
School of Business, University of Nairobi, P.O. Box 30197-00100, Nairobi  
\*Email of corresponding author: [sifunjo.kisaka@gmail.com](mailto:sifunjo.kisaka@gmail.com)

## Abstract

This study analyzed the relationship between profits and dividend payout of commercial banks in Kenya. The research was based on the ten commercial banks consistently listed at the NSE for the five-year period from 2008 to 2012 inclusive. Simple and multiple linear regressions were used to determine the relationship between dividend payout and profits. The key finding of the study is that there is a strong positive relationship between profits and dividend payout. This study is consistent with empirical findings of Abdi (2010) who found that dividend payout positively correlate with future profits of companies though the relationship is low.

**Keywords:** Profits, Dividend Payout, Dividend Irrelevance Theory, Dividend Preference Theory, Tax Effect Theory, Clientele Effect Theory, Information Content Theory and the Agency Cost and Free Cash Flow Hypothesis.

## 1. Introduction

### 1.1 Background of the study

The Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and the various guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalized in 1995 and exchange controls lifted. The CBK, which falls under the Ministry of Finance docket, is responsible for formulating and implementing monetary policies and fostering the liquidity, solvency and proper functioning of the financial system (PWC, 2012). The banking industry in Kenya has been very dynamic and has undergone various changes. For instance several mergers and acquisitions took place between 1994 and 2001. The central bank is the regulator of commercial banking in Kenya and is in the process of ensuring that there is stability in the industry through enacting appropriate policies. Clients in the banking industry can either be retail or corporate. Retail clients usually refer to small depositors who are usually individuals or small organizations while corporate refer to bigger organizations (CBK, 2003).

There are 43 commercial banks registered with the Central Bank of Kenya. However, 10 commercial banks were continuously listed on the Nairobi Securities Exchange which is the market where quoted securities are traded in Kenya. As at December 2012 there were forty three banking institutions and three non-bank institutions registered with the Central Bank of Kenya. The banks have come together under the Kenya Bankers Association (KBA), which serves as a lobby for the banking sector's interests.

This study focused on the ten commercial banks listed on the NSE which are: Barclays Bank of Kenya, CFC Stanbic Bank, Co-operative Bank of Kenya, Diamond Trust Bank (Kenya) Limited, Equity Bank Limited, Housing Finance Company Limited, Kenya Commercial Bank Limited, National Bank Of Kenya Limited, NIC Bank Limited and Standard Chartered Bank Kenya Limited.

Over the period of five years under study, the ten commercial banks listed on the NSE appear to have a consistent year to year rise in profits. However, some of them appear to have a consistent year to year dividend payout while others do not. It is therefore not easy at this particular stage of study to put across that dividend payouts of commercial banks depict any pattern.

Profit is the surplus remaining after all costs including interests and taxes have been deducted from total revenue earned. Profits is said to be the most known measure of success of any given firm. It acts as a yardstick used in evaluating whether the owners investment is worth or not. Dividend payout is basically returns to the shareholders for their capital employed in the firm. Dividend payout does not only entail cash outflow from the firm but it also have substantial signaling effect. The profits are an important consideration to a finance manager when making the financing, investing, and dividend decisions. Financing and investing decisions entails making choices on how much of the profits will be used to finance a firm's operations and undertake new investment opportunities.

Dividends are the returns in form of cash or bonus shares issued to shareholders in regards to the share holding held by the shareholder. It is the return on their investment in the firm. Dividend payout is the percentage of profits paid to shareholders in dividends. It is the ratio of annual dividend per share to profits per share of the firm (Brockington, 1993). The dividend policy guides the finance manager to decide how much will be paid out to shareholders in form of dividends for their share capital holding in the firm (Pandey, 1999). The main types of dividend policies are as follows. First, the constant payout ratio under which a firm agrees upon a constant percentage of the profits as dividends. It maintains this amount regardless of whether the firm makes

more profits or not. Second, the residual dividend policy payout where a firm issue out dividends from the amount that remains after all investments have been undertaken. If all profits are used for investment then no dividends are to be issued out during that period. Third, stable dividend policy where a constant amount of money is distributed to every shareholder in the firm. Fourth, occasionally firms use the Stable plus extra policy where a constant amount of money is maintained as dividend to be issued to every shareholding but an extra amount can be paid when the firm makes huge profits in a particular trading period.

Dividends can be distributed to shareholders in form of cash or stock dividends. Cash dividends involve the dividends being distributed to shareholders in form of money. The profits are divided between the numbers of shares outstanding in the firm. Sherfrin and Statman (1984) account for the reason some investors would prefer cash dividends to other forms of dividends. Stock dividends are issued when the firm intends to retain the profits for reinvestment opportunities in the future. The profits are converted into stock which is given to shareholders free of charge. It guarantees the shareholder additional revenue in the future since dividends are issued in regards to the number of shares held by an individual. The more shares held the greater the amount one receives as dividends and vice versa. Most companies however prefer payment of cash dividends rather than stock dividends. Stock dividends are often made to increase ownership of existing shareholders rather than diluting their interests through the introduction of new shareholders. This is normally the best option especially when the company is faced with serious cash flow problems.

Dividend policy regulates and guides a firm's management when issuing dividends to shareholders. Mature companies with stable cash flows and limited growth opportunities tend to return large amounts of their profits to shareholders either by paying dividends or using the cash to repurchase common stock (Brigham and Ehrhardt, 2011). Firms that are rapidly growing with good investment opportunities invest most of their available cash flows in new projects. They are likely to pay fewer dividends or repurchase their own stock.

The dividend paid out has an effect on the liquidity and profitability position of a firm. Liquidity is the ability of a firm to meet its obligations as and when they fall due. (Pandey, 1999). When a firm issues out dividends it reduces the amount of liquid cash that can be used to meet the demands of short time creditors and lenders. This can have a negative impact on the survival of a firm forcing it to an insolvency situation. Profitability of a firm can also be affected by the dividend decision. By issuing out dividends to the shareholders, the available cash that could have been used for reinvestment is drawn out of the firm.

Profits are basically the surplus or profits retained by a firm from its normal business operations. It is what the firm remains with after deducting the firm's expenses from the revenue it earns from its operations. A firm's profits as shown from its income statement are used to indicate the profitability and viability of a business venture (Lasher, 2008).

A firm mainly exists for the sole reason of maximizing wealth of the shareholders (Howells and Bain, 2007)). Therefore a firm aims at maximizing profits at any given point in time. Profits on the income statement of a firm are important as they show the profitability and viability of the business venture. A firm that continually makes losses is deemed to be of no value to the owners as they do not receive any returns for their capital holding while at the same time reducing the capital base of the shareholders.

The firm's profits are also used for valuation of a company. The value of equity of a firm is thereby determined by multiplying the current PAIT by a suitable multiple. The current PAIT may be adjusted onto a more representative basis to take into account such things as unusual events and owner manager policies. The suitable multiple is usually the price-earnings ratio of a listed company on the Nairobi securities exchange market (Grinblatt and Titman, 1996).

Various users of financial statements of a firm make their decisions by evaluating the performance of a firm. The firm's performance is well represented by examining the income statement which gives the balance of profits of a firm at the end of a financial period. The performance as depicted by the profitability of a firm can influence the decisions of financial statement users to invest in the firm or not.

Profits can be affected by both macro-economic and micro-economic factors prevailing. Macro factors are the factors outside the firms control while micro factors are the factors in which the firm has control over (Wolfgang, 2003). Macro factors include political, environmental, socio-cultural, technological and legal factors. Micro factors on the other hand include the firm's customers, employees, competitors, media, owners and suppliers.

Changing levels of profits indicate some level of changes in returns. This can be caused by risks involved in the industry as a whole or risks facing individual firms. For instance in Kenya in the year 2011, movements in interest rates, inflation and exchange rates presented real dangers to economic stability. Firms experienced high cost in borrowing funds and acquiring input resources. Faced by these challenges and a low consumer purchasing power meant that the earning ability of the firms was reduced.

Dividends are issued out from the retained profits of a firm. When a firm makes higher profits in a given trading period, it is expected to issue out more dividends to the shareholders. The proportion of profits distributed is measured by the payout ratio which is cash dividend divided by profits per share. From this point

of view, it can be hypothesized that profits and dividend payout have positive linear relationship.

## 1.2 Research Problem

Dividends are distributions from profits made by businesses to their shareholders. They are seen as a distribution of the business's recent profits to its owners. Profits are an important element to a firm's liquidity position. Distributing the profits in form of dividends can impact negatively on the firm's cash flow. Modigliani and Miller (1961) argued in their dividend irrelevance theory that the value of a firm is not affected by the distribution of dividends but is depended on the firm's level of risk. Gordon (1959) and Lintner (1956) in their Dividend Preference Theory suggested that shareholders preferred current dividends to capital gains. They also suggested that with more profits, more dividends should be paid out. This would safeguard the shareholders dividend preference. Therefore, a relationship exists between profits and dividends contrary to the findings by Modigliani and Miller (1961). The theory by Ross (1977), the Information Content Theory, suggested that investors can infer information about a firms future profit position through the signal coming from dividend announcements. This implies that a relationship exists between profits and dividend payout also contrary to the findings by Modigliani and Miller (1961).

Looking at the commercial banks listed on the NSE their profits have been rising during the years under study. However, some of them have in the past years had their dividend payout having a rising trend, some constant trend, some decreasing trend while others have not maintained any pattern at all. For example, the dividend payout per share of Co-operative Bank of Kenya rose from Kshs. 0.10 in 2008 to Kshs. 0.50 in 2012. Dividends of Diamond Trust Bank (Kenya) Limited rose from Kshs. 1.40 in 2008 to Kshs.1.90 in the year 2012. On the other hand CFC Stanbic Bank declared no dividend payout in the year 2009 and 2011 yet they made Ksh. 1,105,656,000 and Kshs. 2,798,901,000 profits, respectively, predicting no pattern at all. Evidently, profits earned by commercial banks in Kenya have been increasing in almost all the years under study. Due to this recorded increase in profits over the years under study banks are expected to continually increase their dividend payout. This trend has however not been depicted across all the banks. Some recorded an increasing trend, some constant trend, some a decreasing trend while others had no pattern at all. This therefore necessitated this study so as to provide the answer as to whether a relationship exists between profits and dividend payout or not.

The study by Rashid and Rahman (2008) on relationship between dividend policy and share price volatility found a positive insignificant relationship between share price volatility and dividend yield for non-financial firms listed in the Dhaka Stock exchange during the period of 1999 – 2006. The findings also depicted that debt and growth have positive but insignificant relationship with share price volatility while payout ratio had a significant negative relationship with price volatility. On the contrary Zuriawati, Jorah and Abdul (2012) studied the effect of dividend policy and share price volatility on Malaysian construction and material companies and found a negative insignificant relationship between dividend yield and share price volatility. These two studies give contradicting conclusions and both do not show whether there is any relationship between profits and dividend payout.

Njoroge (2001) examined the relationship between dividends payout and some financial ratio such as return on assets. The result obtained were that the most significant variable in making dividends decision is return on assets. This study did not give any explanation whether or not dividend payout has any relationship with profits. Ngunjiri (2010) studied relationship between payment policies and stock price volatility and indicated that payment policies had a great impact on the stock price volatility. Ngobe et al.(2013) studied the relationship between dividend policy and stock price volatility for the period 1999-2008 at NSE using correlation and multiple regression analysis and concluded that dividend yield has a positive relationship with price volatility while payout ratio has a negative relationship with price volatility, contrary to the findings of Ngunjiri (2010). These two studies only showed that payment policies had an impact on the stock price but did not suggest whether or not dividend payout itself had any relationship with profits of the companies. Mbuki (2010) studied factors that determined dividend payout ratio among SACCOs in Kenya. He found out that the dividends payout ratio was determined by different factors including availability of investments opportunities, availability of cash to pay the dividend and the sustainability of the dividend in the future. SACCOs being closely related to banks in terms of their business operations is comparable to this study. However, the study too did not mention any relationship between dividend payout and profits but only examined the different factors determining the dividend payout.

This study therefore sought to establish whether the profits earned by a company have any direct or indirect relationship with dividend payout. This is a test whether the dividends being declared by companies or payment are in any case dependent on the profits earned in a given year. The research gap here is whether a relationship exists between profits and dividend payout amongst the commercial banks. This study answered this question: "Is there any relationship between profits and dividend payout of commercial banks in Kenya?"

From the above theoretical, contextual and empirical arguments, this study hypothesizes that there is a positive linear relationship between profits and dividend payout of commercial banks.

## 2. Empirical Literature

The Modigliani and Miller (1961) dividend irrelevance proposition has provided the foundation for much subsequent research on dividend policy both in the international and local level. Modigliani and Miller (1961) built their conclusions on a certain set of assumptions of perfect capital markets which in reality some of them appear hard to meet. Relaxing one or more of these assumptions has formed the basis for most of international and local empirical studies.

Black and Scholes (1974) used a long-term definition of dividend yield (previous year's dividends divided by the year-end share price). Their results showed that the dividend yield coefficients are not significantly different from zero either for the entire period (1936-1966) or for any of shorter sub periods. That is to say, the expected return either on high or low yield stocks is the same. Black and Scholes, therefore, concluded that, "we are unable to show that differences in yield lead to differences in stock prices". Black and Scholes's conclusion lent important empirical support to M&M's dividend irrelevance argument and therefore give no evidence on the relationship between profits and dividend payout.

Baker, Farrelly and Edelman (1985) surveyed the chief financial officers (CFOs) of 562 firms listed on the New York Stock Exchange (NYSE) from three industry groups (150 utilities, 309 manufacturing and 103 wholesale/retail). Based on 318 responses, they found that respondents strongly agreed that dividend policy affects common stock prices. Baskin (1989) studied firms in U.S during the period 1967 to 1986 found that the price volatility was negatively related to dividend yield and payout ratio. The findings depict that price volatility will give negative pattern of results in relation to both dividend yield and dividend payout. Baskin used multiple linear regression to arrive at his findings.

Baker and Powell (1999) surveyed 603 CFOs of US firms listed on the NYSE, and observed that 90 percent of respondents believed that dividend policy affects a firm's value as well as its cost of capital. Further studies by the same authors tend to confirm that dividend policy actually matters in the determination of firm value but do not show any relationship between profits and dividend payout.

Rashid and Rahman (2008) researched on relationship between dividend policy and share price volatility and found a positive insignificant relationship between share price volatility and dividend yield for non-financial firms listed in the Dhaka Stock exchange during the period of 1999 – 2006. The findings also depicted that debt and growth have positive insignificant relationship with share price volatility while payout ratio had a significant negative relationship with price volatility. Khaled, Chijoke and Aruoriwo (2011) carried out a research on UK market with the objective of determining the relationship between dividend policy and stock price volatility. After applying a multiple regression analysis on the data, the research showed that there exists a positive relationship between dividend yield and stock price volatility. The research also showed evidence that debt level; firm's size and earning explain price volatility as well. The research however did not prove whether a relationship exists between profits and dividend payout.

Zuriawati, Jorah and Abdul (2012) studied the effect of dividend policy and share price volatility on Malaysian construction and material companies and found a negative insignificant relationship between dividend yield and share price volatility. This study give contradicting conclusion to the similar study done by Rashid and Rahman (2008) and both do not show whether there is any relationship between profits and dividend payout. Yasir, Zernigah and Muhammad (2012) on dividend policy on stock price volatility who applied cross sectional regression analysis in their study concluded that dividend yield is positively related to stock price volatility in Pakistan market.

Mulwa (2006) examined whether the signaling efficiency of dividend changes on the future profitability of quoted companies at the NSE. The population consisted of the 48 companies listed at the NSE and covered a period of 5 years (1998 - 2002). Secondary data obtained from NSE, Stockbrokers, Kenya National Bureau of Statistics (KNBS) and Capital Market Authority (CMA). The study recommends that dividend changes have no effect on future profitability and also recommends further studies to be done.

Amidu (2007) in his study that sought to establish whether dividend policy affects firm's performance used a panel regression equation to meet his objectives. His method differs from a regular time series or cross section regression by the double subscript attached to each variable. The panel pooled crossed-section regression data was used to gain the maximum possible observations. The dependent variables were return on assets and return on equity as the main accounting measures of performance. Dividend payout was measured by the dividend payout ratio. This study recommends that dividend policy is still unresolved.

A study conducted by Abdi (2010) concluded that dividend payout ratios positively correlate with future profits of companies though the relationship is low. The study suggest that further profits be conducted on the appropriation of profits and the future profits of companies so as to bring out clearly what role dividend play in signaling future profits. Ngunjiri (2010) studied the relationship between payment policies and stock price volatility and indicated that payment policies had a great impact on the stock price volatility. Stock price volatility being an indication of firm's profitability shows therefore that profits similarly have a relationship with dividend policies.

Kimutai (2012) revealed that there is a positive effect of liquidity on dividend payout. The findings also revealed that all other independent variables except cash flow had a positive association with dividend payout. This study harmonizes with other studies done in developing countries that portray a positive association between liquidity and dividend payout but does not state whether dividend payout is related to profits earned. For this reason, there is need to explore this matter more with various other models. These results have important implications to the shareholders. Ngobe et al. (2013) studied the relationship between dividend policy and stock price volatility for the period 1999-2008 at NSE using correlation and multiple regression analysis and concluded that dividend yield has a positive relationship with price volatility while payout ratio has a negative relationship with price volatility. This conclusion therefore suggests that profits have a negative relationship with dividend policy. From this point of view Ngobe et al. (2013) conclusion on the negative relationship between payout ratio and price volatility give an indication that profits and dividend payout may also have a negative relationship and needs to be explored further.

From the above empirical studies by both international and local researchers, there seems to be no general agreement on whether a relationship exists between profits and dividend payout. The study by Yasir et al. (2012) on dividend policy contradicts to a similar study by Baskin (1989) though the two were done in the same environment i.e. Pakistan market. Similarly, the study by Rashid and Rahman (2008) and a similar study on dividend policy by Zuriawati, Jorah and Abdul (2012) provide different suggestions. Whereas Rashid and Rahman (2008) suggest a positive insignificant relationship between dividend policy and share price, Zuriawati et al. suggests a negative insignificant relationship. On the other hand the local studies done by Ngobe et al. (2013) and a similar one by Ngunjiri (2010) on dividend payout policies provide contradicting findings. For local empirical studies; the conclusion on the study by Abdi (2010) and Ngunjiri (2010) on dividend payout policies that dividend payout ratios have positive relationship with future profits tend to contradict with the study by Ngobe et al. (2013) whose conclusion showed a negative relationship. The study by Kimutai (2012) tends to agree with the findings of Abdi (2010) though in his study liquidity aspect was used rather than profitability. There is therefore no general agreement in these local researches on the relationship between profits and dividend payout.

### **3. Determinants of Dividend Payout**

There are a number of determinants of dividend payout by companies. These factors usually cut across almost all the sectors in the economy. They include the restrictive covenants on dividend payments, company's liquidity position, availability of investment opportunities, legal rules and regulations and inflation James (2009). Restrictive covenants have more impact on dividend payout to other determinants discussed below. These covenants are contained in bond indentures, term loans, short-term borrowing agreements, lease contracts, and preferred stock agreements. The restrictions limit the total amount of dividends a company can pay. Sometimes they may state that dividends cannot be paid at all until a company's earnings have reached a specified level. In addition, sinking fund requirements, which state that a certain portion of a company's cash flow be set aside for the retirement of debt, sometimes limit dividend payments. Also dividends may be prohibited if a company's working capital (current assets less current liabilities) or its current ratio does not exceed a certain predetermined level James (2009)

Liquidity position relates to the ability of the company to meet short term obligation as and when they arise. Cash is an important element in the liquidity position of the company. When a company does not have enough cash to meet its short term obligations, the management may hold the issuance of dividends to ensure that the retained funds are available when need arises James (2009)

Availability of investments opportunities for a company is also a major factor determining dividend payments. When a company has investment opportunities it can fund them through retained profits or borrowed funds. Retained profits usually offer a cheap available source of financing compared to borrowed funds. If the management makes a decision to use the retained funds, this reduces the amount available for distribution to shareholders hence little or no dividends for that particular period and vice versa James (2009).

According to the Companies Act of Kenya, dividends issue is discretion of the management of a company. It is not mandatory for company to issue out dividends to shareholders. However dividends can only be issued out of the current or past profits of company. A company that continually makes losses cannot declare dividends to shareholders since this would amount to distribution of the company's capital which is prohibited by the Companies Act unless during the dissolution of the company James (2009).

In an inflationary environment, funds generated by depreciation often are not sufficient to replace a firm's assets as they become obsolete. Under these circumstances, a company may be forced to retain higher percentage of profits to maintain the earning power of its asset base. Inflation has an impact on a company's working capital needs. In an atmosphere of rising prices, actual shillings invested in current assets tend to increase to support the same volume of business. And, because the shilling amounts of current liabilities requiring cash outlays are higher with rising prices, transaction cash balances normally have to be increased.

Thus, inflation can force a company to retain more profits as it attempts to maintain its same relative pre-inflation working capital position James (2009).

#### **4. Research Methodology**

This section presents five main sections containing the methodology which was used in the study. Section 3.2 presents the research design chosen for the study followed by Section 3.3 which discussed the population and sample under study. Section 3.4 presents data and data collection instruments; this section discusses how the data was measured and also the instruments that were used to collect the data. Section 3.5 presents both the conceptual and analytical model which was adopted in analyzing the research findings.

##### **4.2 Research Design**

This study adopted descriptive research design based on the key areas of interest. Descriptive research design helps the researcher to clearly identify and describe true characteristics of a research problem without manipulation of research variables (Mugenda & Mugenda, 2003). Descriptive design seeks to portray accurately the characteristics of a particular individual, situation or a group. This study sought to investigate whether a relationship exists between profits and dividend payout. In this study, we have two major variables of interest. The independent variable is the profits while the dependent variable is dividend payout. Liquidity position and inflation rate was however used as control variables in this study.

##### **4.3 Population and Sample**

###### **4.3.1 Population of the Study**

Population is the entire set of elements with which to generalize the study findings. The target population in this study constituted 43 commercial banks registered with the Central Bank of Kenya (Appendix 1). Mugenda and Mugenda (2003) explained that the target population should have observable characteristics to which the study intends to generalize the result of the study. This definition assumes that the population is not homogeneous.

###### **4.3.2 Sample and Sampling Techniques**

Cooper and Schuder (2002) defines sampling as the process of selecting element in a population for purposes of drawing conclusion on specific characteristics from the identified population.

The sample constituted commercial banks that were continuously listed during the 5 year period under study: 2008-2012. 10 commercial banks meet this criterion and will be used in the study

##### **4.4 Data and Data Collection Instruments**

There are two types of data. These are the primary and secondary data. Primary data refers to data collected for the first time such as the use of questionnaires and interviews. Secondary data would however be used in this particular study. Secondary data refers to the information obtained from newspapers, magazines, journals, books and the internet just to mention a few.

This study used secondary data which was collected from NSE. Data relating to dividend payout and profits and the control variables were collected from published financial statements and reports for each financial year end of the ten sampled commercial banks listed on Nairobi stock exchange. Inflation rate data was obtained from the CBK statistics. The Nairobi Securities exchange keeps copies of financial statements and reports of all listed companies from the time they were listed.

##### **4.5 Data Analysis**

Data analysis is the most important part of the study so as to enable the reader to easily understand the context of the study. This research study used quantitative data comprising of profits, dividend payout and the two control variables i.e. liquidity position and inflation rate of commercial banks listed on the NSE.

###### **4.5.1 Conceptual Model**

Linear regression model was used to analyze the data. Regression analysis is used in finding out whether an independent variable predicts a given dependent variable (Zinkmund, 2003). The regression model to be used is of the form:

$$Y = f(X_1, X_2, X_3) \quad (1)$$

In this study, the independent variables were profits, liquidity position and inflation while the dependent variable was dividend payout. Liquidity position and inflation rates were used as control variables since this study aims at investigating the relationship between profits and dividend payout of commercial banks. Expected relationship between profits, liquidity position and inflation rate were determined by use of the resulting multiple linear regression model. A positive linear relationship is expected between profits and dividend payout (Yasir et al. 2012).

###### **4.5.2 Analytical Model**

Multiple linear regression model was used to show the relationship existing between dividend payout and profits,

liquidity position and inflation rate. Expected dividend payout was determined by use of the market model based on the multiple linear regression as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \quad (2)$$

This was the model used to show the relationship between dividend payout and profits, liquidity position and inflation rate of commercial banks listed on the NSE.

Where:

Y = is the dividend payout of commercial banks listed on the NSE in a given year.

X1 = is the profit before tax earned by commercial banks listed on the NSE in a given year.

X2 = is the liquidity position measured by cash and balances with Central Bank of Kenya held by the commercial banks listed on the NSE in a given year end.

X3 = is the inflation rate prevailing in the country at a given year end.

a = constant dividend payout of commercial banks. This is the dividend which is expected to be paid out whether or not the commercial banks make profits, at any liquidity position and at any inflation rate in a given year. It represents the Y intercept in the equation.

$\beta_1, \beta_2, \beta_3$  = regression coefficients calculated through regression analysis. It shows whether or not a relationship exists between dividend payout and each of the other variables. It also shows the nature of the relationship.

None zero value shows a relationship exists while a zero value shows no relationship. On the other hand, a positive value shows a direct relationship whereas a negative value shows an indirect relationship.

e = the error term of the study

The study used correlation-coefficient to test the strength of the relationship between dividend payout and the other variables of the commercial banks listed on the NSE. Karl Pearson's correlation coefficient (r) which ranges from -1 to +1 was used to measure the strength existing between dividend payout and the other variables. -1 show a perfect negative relationship, a value between -0.5 and -1 show a strong negative relationship while a value between -0.5 and 0 show a weak negative relationship. On the other hand, +1 show a perfect positive relationship, a value between 0 and 0.5 show a weak positive relationship while a value between 0.5 and 1 show a strong positive relationship. The study used the t-statistic to test the level of significance between dividend payout and the other variables of commercial banks listed on the NSE at 95% level of significance. Any variable with a p-value that is less than 0.05 is deemed to have significant relationship with the dependent variable, while any variable with a p-value more than 0.05 is considered to have an insignificant relationship.

## 5. Data Analysis, Results and Discussion

This section presents five main sections. Section 4.2 provides the full range of the measures of central tendency resulting from the study. Section 4.3 provides the results of data analysis. Section 4.4 provides a discussion of the findings; this is followed by a conclusive summary done under section 4.5. The analysis used regression analysis and descriptive statistics to test the relationship between dividend payout and profits of Commercial banks. These models were used to determine both the nature and strength of the relationship between the variables under study.

### 5.2 Summary Statistics

Tables 1, 2, 3 and 4 below give the minimum, maximum, mean and standard deviation of each specific variable from data collected for the 10 commercial banks listed on the NSE over the five year period under study: 2008-2012. Similarly, Figure 1, 2, 3 and 4 show the range for each of the variables for the five year period under study.

#### 5.2.1 Dividend Payout

**Table 1: Descriptive Statistics on Dividend Payout for Year 2008-2012**

YEAR	Minimum	Maximum	Mean	Standard Deviation
2008	-	11,108,331,060	1,975,639,955	3,404,469,883
2009	-	3,395,000,000	1,169,517,591	1,343,725,050
2010	161,000,000	7,401,100,000	2,051,593,451	2,411,224,480
2011	-	8,146,500,000	2,214,829,625	2,757,743,889
2012	56,000,000	5,643,646,676	2,329,163,265	2,321,510,592

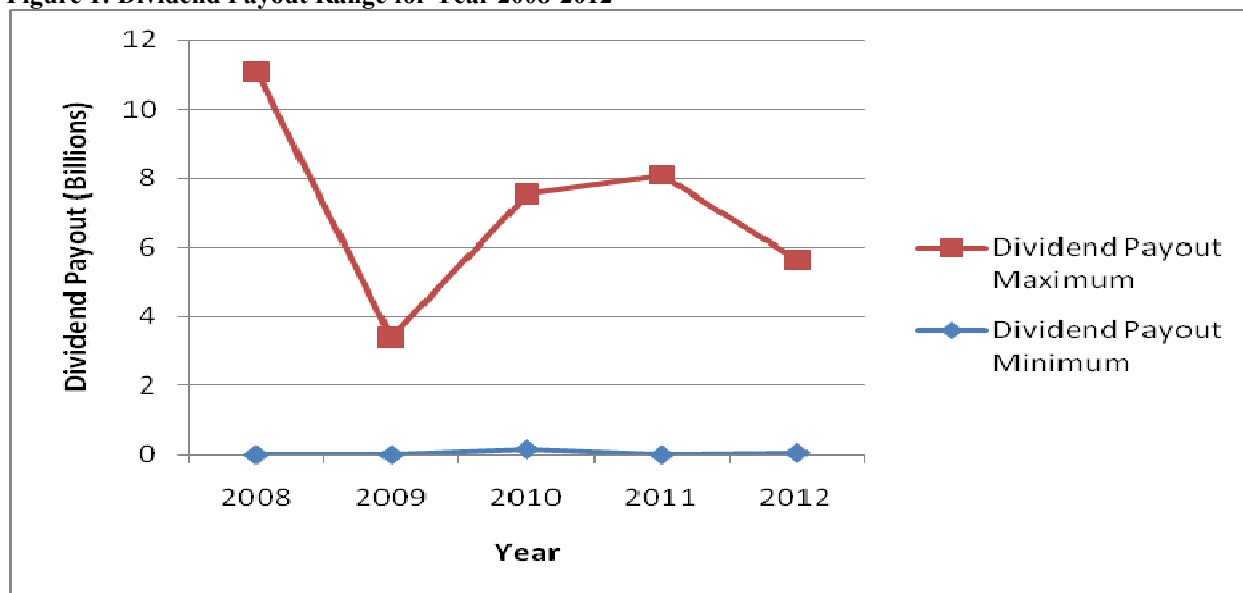
#### Source: Author's Computation

The descriptive results in Table 1 above shows that dividend payout by the commercial banks for the year 2008 ranged from a minimum of Kshs. 0 to a maximum of Kshs.11,108,331,060 with a mean of Kshs.1,975,639,955 and a standard deviation of Kshs. 3,404,469,883 across the 10 commercial banks. In the year 2009 dividend payout ranged from a minimum of Kshs. 0 to a maximum of Kshs. 3,395,000,000 with a mean of Kshs. 1,169,517,591 and a standard deviation of Kshs. 1,343,725,050 across the 10 commercial banks. Year 2010 however recorded a minimum dividend payout of Kshs. 161,000,000 and a maximum of Kshs. 7,401,100,000 with a mean of Kshs. 2,051,593,451 and standard deviation of Kshs. 2,411,224,480. For financial year 2011, the commercial banks minimum dividend payout was Kshs. 0 and a maximum of Kshs.8, 146,500,000 with a mean

of Kshs. 2,214,829,625 and a standard deviation of Kshs.2, 757,743,889. However in the year 2012, the minimum dividend payout recorded was Kshs.56, 000,000 and a maximum of Kshs. 5,643,646,676 and a mean of Kshs. 2,329,163,265 with a standard deviation of Kshs. 2,321,510,592.

From the observations in Figure 1 below it can be noted that lowest dividend payout was experienced in the year 2008, 2009 and 2011 where the minimum dividend payout was nil. Year 2008 had both the highest dividend payout as well as the highest variation in the dividend payout.

**Figure 1: Dividend Payout Range for Year 2008-2012**



### 5.2.2 Profits of Commercial Banks Listed on the NSE

**Table 2: Descriptive Statistics on Profits for Year 2008-2012**

YEAR	Minimum	Maximum	Mean	Standard Deviation
2008	202,670,000	8,016,000,000	3,320,920,000	2,537,160,314
2009	351,118,000	9,002,000,000	3,811,767,800	2,878,776,801
2010	561,028,000	13,553,000,000	5,718,506,400	4,179,469,316
2011	975,795,000	15,129,374,000	6,878,341,600	4,956,988,649
2012	907,631,000	17,420,000,000	8,637,732,700	6,111,528,385

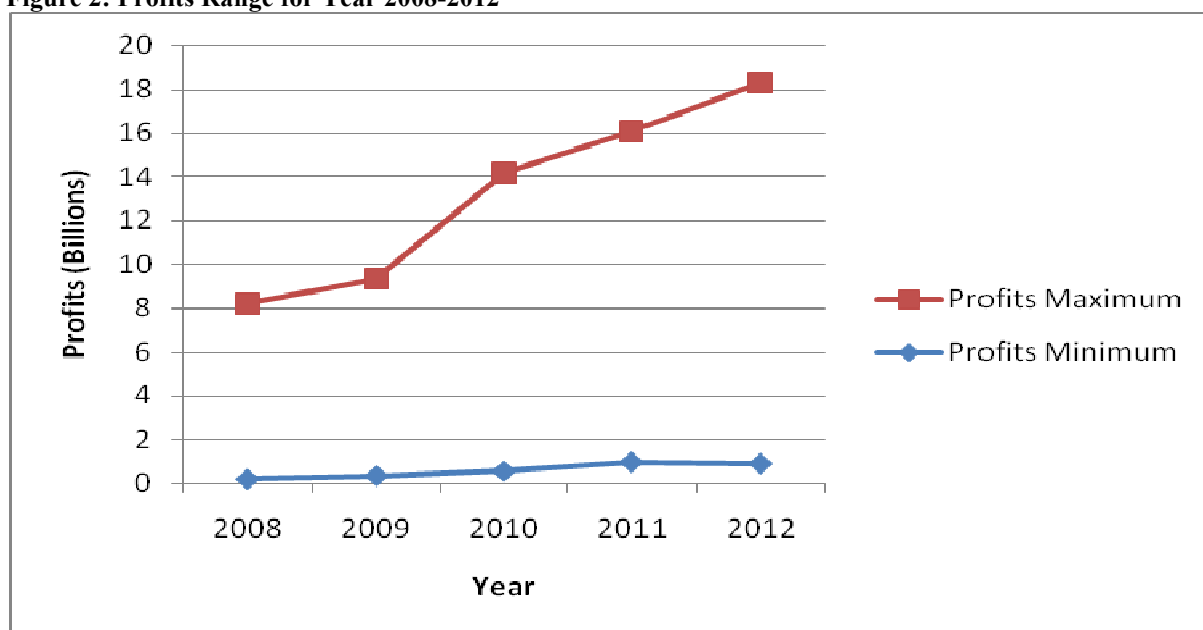
**Source: Author's Computation**

The descriptive results for profits before taxation for the 10 commercial banks as shown in Table 2 above shows that in the year 2008 profits ranged from a minimum of Kshs. 202,670,000 to a maximum of Kshs. 8,016,000,000 with a mean of Kshs. 3,320,920,000 and a standard deviation of Kshs. 2,537,160,314. In the year 2009 profits before taxation ranged from a minimum of Kshs. 351,118,000 to a maximum of Kshs. 9,002,000,000 with a mean of Kshs. 3,811,767,800 and a standard deviation of Kshs. 2,878,776,801 across the 10 commercial banks. Year 2010 recorded minimum profits of Kshs. 561,028,000 and a maximum of Kshs. 13,553,000,000 with a mean of Kshs. 5,718,506,400 and standard deviation of Kshs. 4,179,469,316. For financial year 2011, the commercial banks' minimum profits before taxation was Kshs. 975,795,000 and a maximum of Kshs. 15,129,374,000 with a mean of Kshs. 6,878,341,600 and a standard deviation of Kshs. 4,956,988,649. However in the year 2012, the minimum profits before taxation recorded was Kshs. 907,631,000 and a maximum of Kshs. 17,420,000,000 and a mean of Kshs. 8,637,732,700 with a standard deviation of Kshs. 6,111,528,385.

Unlike the dividend payout above the lowest profits before taxation was observed in the year 2008 while year 2012 had the highest dividend payout recorded. The highest variation as measured by the standard deviation in profits before taxation was in the year 2012 and at the same time the highest mean profits was in the same year. Figure 2 below can best present these observations.



**Figure 2: Profits Range for Year 2008-2012**



### 5.2.3 Liquidity Position

**Table 3: Descriptive Statistics on Liquidity Position for Year 2008-2012**

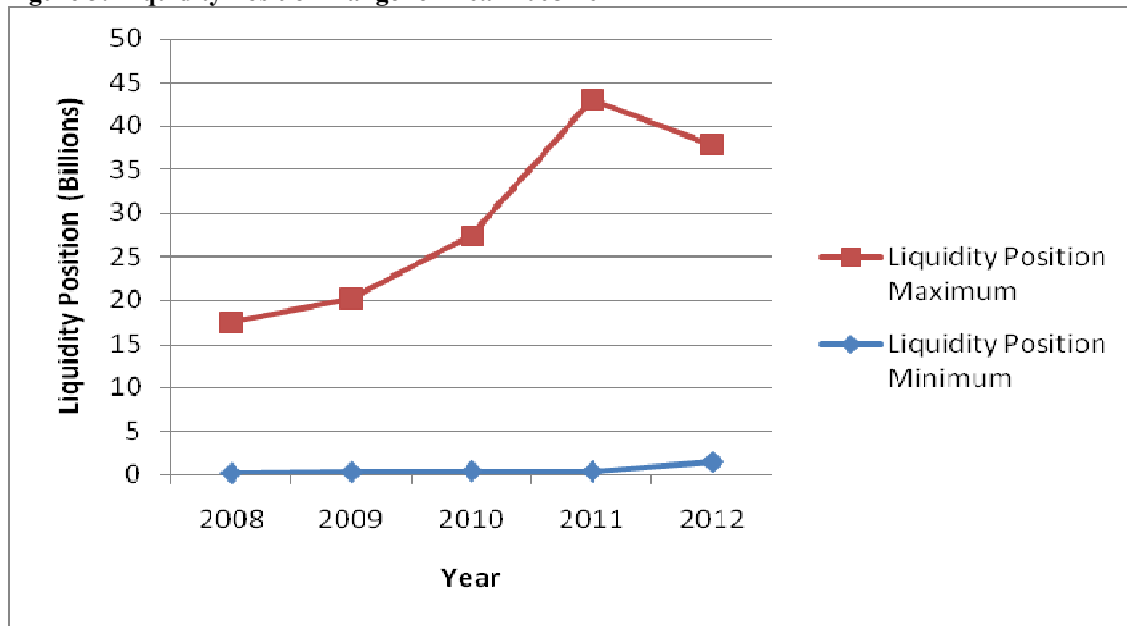
YEAR	Minimum	Maximum	Mean	Standard Deviation
2008	186,896,000	17,239,000,000	6,892,351,100	5,076,127,195
2009	319,839,000	19,871,000,000	7,796,296,300	5,086,650,982
2010	420,390,000	26,998,000,000	9,901,655,100	7,457,176,345
2011	384,034,000	42,708,016,000	13,054,990,200	11,628,077,411
2012	1,454,359,000	36,419,912,000	14,682,403,700	10,426,568,946

**Source: Author's Computation**

The descriptive statistics of liquidity position as measured by the cash and balances with Central Bank of Kenya were as per Table 3 above. Year 2008 had a minimum value of Kshs.186,896,000 with the highest value of Kshs. 17,239,000,000.Its mean was Kshs.6,892,351,100 while the standard deviation stood at Kshs. 5,076,127,195.Year 2009 recorded minimum liquidity position of Kshs. 319,839,000 and a maximum of Kshs. 19,871,000,000 with a mean of Kshs. 7,796,296,300 and standard deviation of Kshs. 5,086,650,982.For the financial year 2010, the commercial banks' minimum liquidity position was Kshs.420,390,000 and a maximum of Kshs.26,998,000,000 with a mean of Kshs. 9,901,655,100 and a standard deviation of Kshs. 7,457,176,345. For financial year 2011, the commercial banks' minimum liquidity position was Kshs. 384,034,000 and a maximum of Kshs. 42,708,016,000 with a mean of Kshs. 13,054,990,200 and a standard deviation of Kshs. 11,628,077,411.However in the financial year 2012, the minimum liquidity position recorded was Kshs. 1,454,359,000 and a maximum of Kshs. 36,419,912,000 and a mean of Kshs. 14,682,403,700 with a standard deviation of Kshs. 10,426,568,946.

From the above observations, the lowest liquidity position as measured by cash and balances with the Central Bank of Kenya was recorded in the year 2008 with a maximum value in the year 2011.Year 2012 had the highest mean value while major variation occurred in the year 2011 as measured by the standard deviation. Figure 3 below can best present these observations.

**Figure 3: Liquidity Position Range for Year 2008-2012**



#### 5.2.4 Inflation Rate

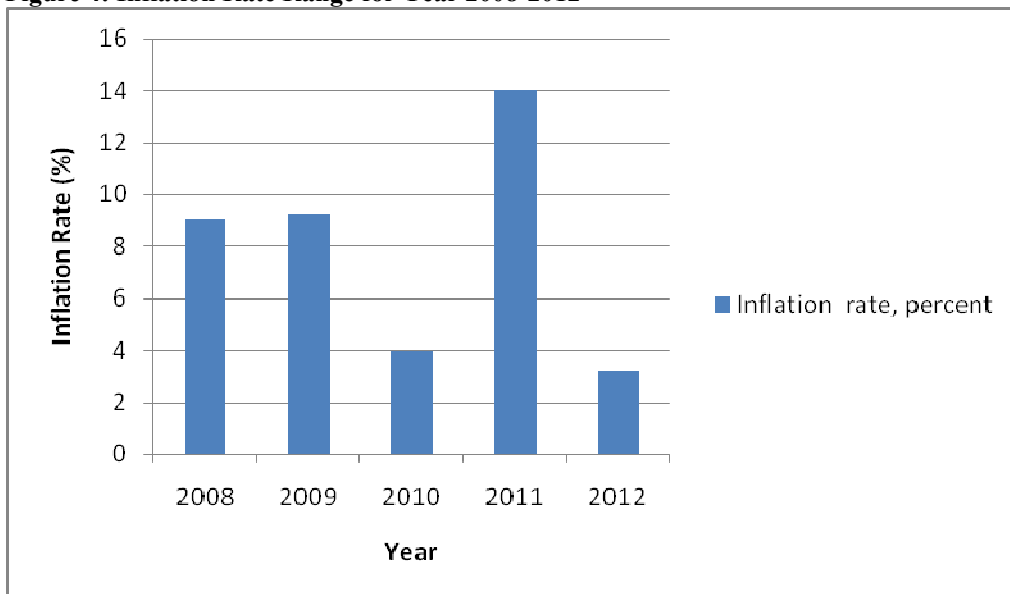
**Table 4: Descriptive Statistics for Year 2008-2012**

Year	2008	2009	2010	2011	2012
Inflation rate, percent	9.04	9.24	3.96	14.02	3.2

**Source: Author's Computation**

As per the central bank statistics, presented in Table 4 above, the highest inflation rate in the five year period was observed as at 31<sup>st</sup> December 2011 with the rate standing at 14.02% while the lowest rate was 3.2% and was recorded on 31<sup>st</sup> December 2012. The mean inflation rate as per the statistics was 7.89% while the standard deviation was 4.42% for the period. Figure 4 below can best depict this observed trend.

**Figure 4: Inflation Rate Range for Year 2008-2012**



### 5.3 Profits and Dividend Payout

#### 5.3.1 Results of Correlation Analysis

**Table 5: Correlation Analysis**

		Dividend Payout	Profits	Liquidity
Dividend Payout	Pearson Correlation	1	0.961	0.597
	Sig. (2-tailed)		0.000	0.068
Profits	Pearson Correlation	0.961	1	0.769
	Sig. (2-tailed)	0.000		0.009
Liquidity Position	Pearson Correlation	-0.597	0.769	1
	Sig. (2-tailed)	0.048	0.009	
Inflation Rate	Pearson Correlation	0.038	0.157	0.491
	Sig. (2-tailed)	0.917	0.666	0.150

**Source: Author's Computation**

From the correlation analysis in Table 5 above the following observations can be deduced: Profitability of commercial banks is positively and strongly related to dividend payout as indicated by Pearson correlation coefficient of 0.9607. The relationship is also significant at 5% significance value since the p value of 0.000 is less than 0.05. Liquidity position of commercial banks is negatively related to dividend payout as shown by coefficient of correlation of -0.5970 and is significant at 95% confidence level since its p value of 0.048 is lower than the allowable value of 0.05. However, liquidity is positively related with profitability with a coefficient of correlation of 0.7685 implying higher profitability leads to higher dividend payout. Inflation is also positively related to dividend payout with coefficient of correlation of 0.038. However, the relationship is not significant at 95% confidence level since the p value is more than the allowable 0.05 i.e. the p value is 0.917.

#### 5.3.2 Results of Model Goodness of Fit Test

**Table 6: Model Goodness of Fit Test**

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.985968	0.972133	0.9582	4.35E+08

**Source: Author's Computation**

From the results of the model goodness of fit analysis shown in Table 6 above, the relationship between dividend payout and the independent variables; profits, liquidity position and inflation rate is very strong as shown by coefficient of correlation of 0.986. The coefficient of determination which shows how the change in the independent variable results to changes in the dependent variable had a value of 0.958 implying that the model developed could explain 96.8% of changes in dividend payout.

#### 5.3.3 Results of ANOVA

**Table 7: Analysis of Variance**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3.96E+19	3	1.32E+19	69.76969	0.0000
Residual	1.13E+18	46	1.89E+17		
Total	4.07E+19	50			

**Source: Author's Computation**

From the results of the analysis of variance shown in Table 7 above, it is observed that at 95% confidence level, the model developed is significant as shown by the p value of 0.0000 which is less than the allowable 0.05. This implies that the model developed was reliable in making predictions.

#### 5.3.4 Estimated Model

**Table 8: Empirical Model**

	Unstandardized Coefficients	Std. Error	Beta	t	Sig.
Constant	-8.1E+08	3.61E+08		-2.24242	0.066127
Profits	0.66056	0.061841	1.23889	10.68166	0.0004
Liquidity Position	-0.10377	0.037197	-0.36684	-2.78986	0.031583
Inflation Rate	-	43,477,383	0.023888	0.28043	0.788566

**Source: Author's Computation**

The model estimated is shown from the data analysis in Table 8 above. From the model a unit increase in profits would lead to an increase in dividend payout by 0.661 units of commercial banks listed on the NSE. On the other hand, a unit increase in liquidity position would lead to a reduction in dividend payout by 0.104 units i.e. a negative relationship. The study shows that there was an insignificant relationship between dividend payout and inflation rate.

### 5.4. Discussion

The research used multiple linear regression model in interpreting the findings. The coefficient of determination,

R Square, for the model was 0.958. This means that the predictor variables accounted for 95.8% of the variations in dividend payout. This implies that profits, liquidity position and inflation rate exert more pressure on dividend payout of commercial banks listed on the NSE.

The gradient of Profits in the basic model was 0.661 while liquidity position had a gradient of -0.104 and insignificant for inflation rate. From the p value results it was found out that profitability of commercial banks accounted to a greater extent to dividend payout followed by liquidity position. However, inflation rate was seen to have an insignificant effect on dividend payout.

## 6. Conclusion

The objective of the study was to investigate the relationship between profits and dividend payout for commercial banks in Kenya by the use of the 10 commercial banks listed on the Nairobi securities exchange as a sample. The research findings depict that there was a strong positive relationship between profits and dividend payout. The control variables which included liquidity position and inflation rate were found to have no significant relationship with dividend payout since a higher percentage could be accounted to a great extent by profits earned in a given financial year. The study concludes that there is a strong positive relationship between profits and dividend payout of commercial banks in Kenya.

## 7. Recommendations for Policy

The findings of this study indicate that profits and dividend payout have a strong positive relationship. The study therefore recommends that the BOD should declare dividends which are consistent with the profits earned in a given financial year. On liquidity position, the study found out that a negative relationship exists between dividend payout and liquidity position. This study recommends that a comprehensive assessment of the company's immediate liquidity position should be undertaken before any dividend payout is declared to the shareholders. This is because the company's liquidity position is of high importance since it influences the company's current operations.

The study however found out that the prevailing inflation rate in the country has an insignificant relationship with dividend payout. Hence a research incorporating only the dividend payout and inflation rate independent of other determinants of dividend payout needs to be undertaken so as to support the findings of this study.

## References

- Abdi, M. A. (2010). *Signaling effect of dividend payment on the profits of the Firm: evidence from the Nairobi stock exchange*, Unpublished MBA Thesis, University of Nairobi.
- Amidu J.K.(2007).*Effects of Dividend policy on Firms performance*. Unpublished MBA project, University of Nairobi.
- Baker, H. K., & Gary E. P.(1999).*How Corporate Managers View Dividend Policy*. Quarterly Journal of Business and Economics 38, 17-35.
- Baker, H. K., Gail E. F., & Richard B. E. (1985).*A Survey of Management Views on Dividend Policy*, Financial Management 14, 78-84.
- Baskin, J. B., & Paul J. M.(1989).*A History of Corporate Finance*. Cambridge University Press, Cambridge.
- Black, F.,& Scholes. M. (1974). *The effect of dividend yield and dividend policy on common stock and return*. Journal of financial economics May.
- Brigham, E.F., and Ehrhardt M.C. (2011). *Financial Management Theory and Practice* (13<sup>th</sup> Edition) South Western Cengage Learning Graphic World, Inc.
- Brockington, R. (1993).*Financial Management* (6<sup>th</sup> Edition) DP publishers.
- Cooper,R.D. & Schindler,S. P. (2004).*Business Research Methods* (8<sup>th</sup> Edition). New York:McGraw-Hill/Irwin.
- Fama, E. F. (2001). *Efficient capital markets: A review of theory and empirical work*. The Journal of Finance, 25(2), 383-417.
- Gordon,& Myron J. (1959). Dividends, Profits and stock prices. Review of economics and statistics 41. 99-105.
- Grinblatt, M.,& Titman. S. (1996). *Financial Markets and Corporate Strategy* (2<sup>nd</sup> Edition) MC Graw-Hill Irwin publishers.
- Howells, P.,& Bain K. (2007). *Financial markets and Institution* (5<sup>th</sup> Edition) Prentice Hall Person Education limited publishers. Journal Financial Management, vol.20, p60-70.
- James (2009). *Financial Management & Policy* (12<sup>th</sup> Edition) Pearson Education Publishers. p 328-331.
- Khaled, H., Chijoke, O. M., & Aruoriwo, M. C. (2011). *Dividend policy and share price volatility: UK evidence*. Journal of risk finance, 12 (1), 57 – 68.
- Kimutai, P. K. (2012).*The effect of liquidity on dividend payout by companies listed at the Nairobi securities exchange*, Unpublished MBA Thesis, University of Nairobi.
- Lasher, R.W. (2008). *Financial Management a Practical Approach*(5<sup>th</sup> Edition). Thomson South Western

- Cengage Learning Graphic World, Inc.
- Mbuki, C. (2010). *Factors that determine dividend payout ratio among SACCOs*. Unpublished MBA project UoN.
- Modigliani, F. & Miller, H.M. (1961). *Dividend policy and the valuation of shares*. Journal of Business.
- Mugenda, M., O. & Mugenda, G.,A. (2003). *Research Methods*. Nairobi: Acts Press.
- Mulwa, H. (2006). *Signaling efficiency of dividend changes on the future profitability of quoted companies at the NSE*. Unpublished MBA project, University of Nairobi.
- Ngobe, D. K., Simiyu, A. K., & Limo, P. K. (2013). *Dividend policy and share price volatility in Kenya*. Research journal of finance and accounting, 4 (6), 115-120.
- Ngunjiri, M. (2010). *The relationship between Dividend payment policies and stock price volatility for companies quoted at NSE*. Unpublished MBA project, University of Nairobi, Kenya.
- Njoroge, F. (2001). *The Impact of the 1986 tax Reform Act on ex-Dividend Day Returns*.
- Pandey, I.M. (1999). *Financial Management*, Delhi Limited India.
- Petit, R.R. (1977). *Taxes, Transaction costs and clientele effects of dividends*. Journal of Financial Economics pages (49-436).
- Rashid, K. & Rahman, H. (2008). *Relationship between dividend policy and share price volatility of non financial firms listed on Dhaka Stock Exchange*. Journal of Finance (26-29).
- Ross, S.A. (1977). *The Determination of Financial Structure: The Incentive Signaling Approach*. The Bell Journal of Economics, 8, 23-40.
- Sherfrin, H.M. & Statman, M. (1984), *Explaining investors preference for cash dividends*. Journal of financial economics.
- Wolfgang, B. (2003). *Macroeconomic factors and stock returns in Germany*. Centre for Finance and Banking, Justus Liebig University.
- Yasir, H., Zernigah, I. K., & Muhammad, A. K. (2012). *Dividend Policy and Share Price volatility: Evidence from Pakistan*. Global Journal of Management and Business Research, 12 (5), 78-84.
- Zinkmund, W. G. (2003). *Business Research Methods*. Oklahoma State University, Thomson South Western.
- Zuriawati, Z., Jorlah, M., & Abdul, H. (2012). *The impact of dividend policy on share price volatility: Malaysian construction and material companies*. Journal of economics and management sciences, 5 (2), 01-08.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

### CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

**Prospective authors of journals can find the submission instruction on the following page:** <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

### MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

### IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

