THE RELATIONSHIP BETWEEN EARNING VOLATILITY AND THE DIVIDEND PAYOUT OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This research project is my original work and has not been presented for degree in any other university or any other award.

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

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DEDICATION

I dedicate the research to my family for their support and encouragement throughout the study period.

ABSTRACT

This study was on the relationship between earnings volatility and dividend payout of firms listed at the NSE market. The research objective was to assess the nature of relationship between earnings volatility and divided payout of the listed firms at the NSE market. The results will assist in the understanding of how earning volatility influence a firm's dividend payout. Firms can then make use of such information to implement a dividend payout which satisfies its shareholders expectation. The firm will also ensure that the dividend payout implemented is not negatively affected by the volatility of its earnings since a decline in dividend payout for shareholders can be interpreted in terms of worse times ahead for such a firm. The research was based on the firms consistently listed at the NSE for the five years' period from 2008 to 2012 inclusive. Data on listed firms is readily available and regarded credible for use. Thirty nine firms were used in the analysis upon which regression analysis and the SPSS analytical software were used to analyze the data. The research found that there was no significant relationship between earnings volatility and dividend payout. Dividend payout and earnings volatility were also found to vary in the different years under study. Earnings volatility was therefore one of the factors that influenced the dividend payout of a firm though not significantly and thus further research is therefore necessary to establish the specific factors that influence the dividend payout of a firm. It is also necessary to undertake research on the firms not listed at the NSE market in order to ascertain the relationship of the two variables among firms not listed at the NSE market.

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LIST OF ABBREVIATION

DP : Dividend Payout

DPS : Dividend per Share

EAIT : Earnings after Interest and Taxes

EPS : Earnings per Share

EV : Earnings Volatility

NSE : Nairobi Securities Exchange

SPSS : Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Firms' earnings are basically used for two specific purposes: reinvestment and giving returns in form of dividends to shareholders. The earnings are an important consideration to a finance manager when making the investment, dividend and financing decision. Investment and financing decision entails making choices on how much of the earnings will be used to finance a firm's operations and undertake new investment opportunities. The dividend policy guides the finance manager to decide how much will be paid out to shareholders in form of dividends or returns for their share capital holding in the firm (Pandey, 1997). The finance manager also decides the portion of earnings to be retained by the firm for future expansion and investment of new opportunities.

All earnings belong to the firm's stockholders whether they are paid out as dividends or retained. Retained earnings offer an available source of financing since they are internally generated. It is also less costly since there is no issue cost and there is no required repayment date. Using retained earnings for reinvestment reduces the amount available to stockholders for dividend payment. This is more so for companies that make use of the residual dividend policy for issuing dividends. The residual dividend policy implies that stock owners will be issued dividends out of the cash residual that remains after investment decision has been made (Lumby and Jones, 2003).

A firm mainly exists for the sole reason of maximizing wealth for the firm and shareholders (Howells and Bain, 2007)). Therefore a firm aims at maximizing profits and returns of the company which forms the basis of retained earnings. Earnings 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 of no value to stockholders as they do not receive any returns for their capital holding while at the same time reducing the capital base of the shareholders. An investment opportunity that offer high returns also entails higher risk (Lasher, 2008). If the investor is not certain of the dividends he will receive the next period, it gives an indication of volatile returns. A firm that is able to make earnings constantly year in year out is able to maintain a stream of dividends to its shareholders. When a firm makes high earnings, it's able to issue out high dividends to shareholders while low earning mean that low dividends will be issued out to shareholders. Earnings volatility can be caused by both macro and micro economic factors affecting the firm. Macro factors are the factors outside the firms control while micro factors are the factors in which the firm has control over (Wolfgang, 2003).

The dividend paid 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, 1997). When a firm issues 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 an impact on the survival of a firm forcing the firm to an insolvency situation. Profitability of a firm can also be affected by the dividend decision. By issuing dividends to the shareholders, the available cash that could have been used for reinvestment is drawn out

of the firm. A firm that does not have other sources of funds is limited on the amount of investment it could undertake. This denies the firm an opportunity to undertake projects which could increase the future profitability of the firm.

1.1.1 Earnings Volatility

Volatility in earnings refers to the probability that actual earnings will differ from the expected earnings due to certain macro and micro economic conditions (Wolfgang, 2003). Such conditions may include: inflation level, social political instability, firm policies and availability of capital to the firm. Earnings 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 earnings as shown from its income statement are used to indicate the profitability and viability of a business venture (Lasher, 2008). 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 retained earnings of a firm at the end of a financial period. The performance as depicted by the earning ability of a firm can influence the decisions of financial statement users to invest in the firm or not.

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

indicate some level of volatility in returns. This can be caused by risks involved in the industry as a whole or risks facing individual firms.

1.1.2 Dividend Payout

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 earnings paid to shareholders in dividends. It is the ratio of annul dividend per share to earnings per share of the firm (Brockington, 1993).

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 earnings to shareholders either by paying dividends or using the cash to repurchase common stock (Brigham and Ehrdardt, 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.

1.1.3 Relationship Between Earnings Volatility and Dividend Payout

Dividends are issued out from the retained earnings of a firm. When a firm earns higher earnings in a given trading period, the firm is able to issue out more dividends to the shareholders. The proportion of earnings distributed is measured by the payout ratio which is cash dividend divided by earnings per share.

If the amount of the dividend paid to shareholders is stable, the payout ratio will fluctuate with fluctuations in earnings. As earnings grow, the firm can increase its cash dividends.

However, a firm's management might not immediately increase the level of dividend payout unless there is certainty that the firm will continue to make good earnings in the future. This is mainly so because when a firm makes higher earnings in a certain period then declares high dividend, a time when the earnings fluctuate negatively declaring lower dividends would send mixed signals to shareholders. Some might interpret the information as possibilities of bad times ahead for the firm (Brockington, 1993).

Volatility of earnings implies that the amount that is attributed to shareholders will keep on fluctuating. To avoid a scenario where by the DPS keeps on changing a firm might settle on a low dividend payout. This is usually an amount that the firm's management is sure that it is capable of paying out to shareholders. This amount can then only be increased when the management foresees a favourable future ahead for the firm (Brockington, 1993).

1.1.4 Nairobi Securities Exchange

The Nairobi Securities exchange was constituted as Nairobi stock exchange in 1954 as a voluntary association of stock brokers in the European community registered under the societies act. Dealing in shares and stocks started in the 1920s when the country was still a British colony. However the market was not formal as there did not exist any rules and regulations to govern stock broking activities. Trading took place on gentleman's agreement (Nairobi Securities Exchange Website).

By the end of the year December 2012, some firms listed in the NSE market reported double digit growth in profits. An analysis of the full year results showed that whereas the banking industry continued to post impressive results, firms in other service industry and those in the manufacturing are struggling to balance between expansion, stability and shareholder returns. Some firms listed in the NSE market have expanded their boundaries to other neighbouring country regions not ventured before. As businesses grow, the management of such firms has focused on cutting costs and leverage on technology and finding cheaper distribution methods. Their main agenda is to bring down the cost to income ratio. Improved performance of firms leads to increased earnings and hence they are in a position to reward shareholders higher dividends payment compared to other trading years.

Liquidity management is a critical component of every organization. More so the firms listed at the NSE market. This is due to the fact that there is more scrutiny of the financial statements of the listed firms. The aspect of liquidity management becomes very crucial for a firm when deciding on its dividend payout. A firm's earnings provide a firm with the relevant cash flow to maintain its liquidity position. Hence a firm's management will need to consider the level of earnings to issue out as dividends in order not to pose a financial risk to the firm by being in a position where it can not meet its financial obligations.

As of March 2013, the firms listed t the NSE were sixty one, representing ten sectors of the economy including; agriculture, commercial and other services, telecommunication and technology, automobiles, Banking, Insurance, Manufacturing and allied, construction, energy and petroleum industries.

1.2 Statement of the Problem

Dividends are issued out of the earnings earned by a firm. As a firms earnings increase, it is expected that the firm is in a better position to issue a higher dividend payout to the shareholders of the firm. However when a firm earnings are volatile, the shareholders are uncertain as whether or not they will receive dividends. The proportion of earnings received by shareholders is the dividend payout ratio.

The Bird in hand theory as proposed by Gordon and Lintner stated that shareholders preferred current dividends to capital gains. This is due to that shareholders viewed current dividends being more certain as compared to capital gains which are to be received in the future. Therefore the theory suggests that the more earnings a firm makes the more dividends it should give to shareholders. In addition the signaling theory suggests that when a firm issues out dividends, it has an effect on the shareholders opinion. It signals to shareholders that the firm has prospects of better performance in the future. The improved earnings will eventually translate to high dividend payout to the shareholders (Pandley, 1997).

Earnings significantly influences dividend payout as it was found out by Fama and Babiak (1968), in their research on dividend policy. It therefore implies that volatility in

earnings will affect the dividend payout followed by a firm. Earnings and dividend s were found to influence the value of a firm's common stock based on Gordon and Myron, (1959) argument. According to their study on the relationship between dividends, earnings and stock prices, when the earnings of a firm grew, the firm issued out more dividends to shareholders. This in turn increased the price value of the firms stock. Modigliani and Miller, MM1, (1961) researched on the value of a firm. They concluded that a firm's value is determined the riskiness of the business venture and the earning ability of the firm. They argued that dividends are irrelevant in the valuation of a firm. This was in the absence of taxes. They later reviewed this argument and included the aspect of taxes, MM11. In the presence of taxes and cost of raising capital the amount of dividend payout is relevant to the value of the firm.

Muindi, (2006) studied the relationship between EPS and DPS of equities for Companies registered at the NSE market for the years 2000 to 2004. He established that there was a significant positive relationship between EPS and DPS. However his conclusions showed a negative relationship between the EPS and DPS for finance and investment sectors. Karanja, (1987) while undertaking a research regarding dividend practices, argued that the dividend practice does not only involve the decision to pay dividends or not. It also entailed how much to pay and the mode of payment. The firms earning ability and level of cash flow also influenced the changes in dividend policy. A firm's ability to maintain a high and constant level of earnings would therefore ensure that the shareholders get dividends regularly. When earnings changed negatively, the firm's management would not be in a position to issue out dividends to shareholders as minimal funds would be

available for re-investment and distribution to the owners. The management would rather retain the funds in the firm in order to guard against future cash flow problems.

Mbuki, (2010) study on the factors that determine dividend payout ratio among Sacco's in Kenya. The findings suggested that firms pay dividend because of lack of investment opportunities, availability of cash to pay dividends and the sustainability of the dividend payment in the future. Studies further suggest that earnings announcements contain relevant information to investors which impacts positively on stock prices after the dividend announcements. It gives an indication to investors that the firm has a possibility of doing even better in the future and hence better returns for the investors.

Several researches have been done on determinants of dividend policy, and relationship between EPS and DPS. However a study to assess the relationship between earnings volatility and dividend payout needs to be conducted in order to assess the effect of volatility of earnings of a firm on the dividend payout. Thus this research will be useful in bridging this research gap on how earnings volatility relate to dividend payout?

1.3 Objective

The objective of the study is to assess the nature of relationship between earnings volatility and the dividend payout of firms listed at the NSE market.

1.4 Importance of the Study

The study will be important to the theory of the firm in regards to achieving the firm's main objective which is profit maximization. By making use of this information, the firm will balance its liquidity and profitability objective in regards to the firm's available earnings. The study will also be of assistance to the practice of the firm in regards to maintaining a dividend payout which is consistent with the firm's objectives and leads to the satisfaction of the firms shareholders.

The study will also contribute to greater understanding to students on the relationship of earnings volatility and dividend payout. This will inform them on the changes in dividend payout in regard to earnings volatility. The result of the study will show to what extent the earnings the firm makes contribute to the dividend the firm will issue out to shareholders.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will review the various theories in regards to dividends, the factors affecting the issue of dividends by a firm and the relationship between dividend policy and earnings volatility. It will also explore the empirical studies that have been carried out by various researchers elsewhere that have a bearing on this particular study and the dividend policies used by firms in the issue of dividends to shareholders.

2.2 Dividend Theories

2.2.1 Dividend Irrelevance Theory

The theory was developed by Miller and Modigliani. They argued that a firm's value is determined only by its basic earning power and its level of business risk. Their conclusion was that a firm value depended only on the income produced by its assets and not how this income is split. In review of this theory dividend issued out to shareholders does not determine the value of a firm hence irrelevant in regards to firm valuation.

A shareholder can in theory construct his own dividend policy. If a firm does not pay dividends a shareholder who wants a 5% dividend can create it by selling 5% of his stock. If a firm that pays higher dividend that desired by shareholder, he can use the unwanted dividend to buy additional shares of the firms stock. If he can buy and sell shares hence create his own dividend policy without incurring costs, then the firm's

dividend policy is irrelevant. The key assumptions behind this theory are the absence of taxes and brokerage costs (Modigliani and Miller, 1961).

2.2.2 Dividend preference theory

It is also referred to as Bird in hand theory. Gordon and Lintner proposed this theory. They argued that shareholders prefer a firm that issues dividends to capital gains for the investment the shareholders own in the firm. It is based on the uncertainty of the future hence shareholders prefer receiving dividends to not receiving them. They also prefer current dividends to future capital gains because something paid today is more certain to be received than something expected in the future (Mayo, 2007).

The proponents argued that a stock risk decreases as dividends increase. A return in form of dividends is a sure thing but a return in the form of capital gains is risky. Thus shareholders prefer dividends and are willing to accept a lower required return on equity (Mayo, 2007).

2.2.3 Tax effect theory

This theory states that shareholders prefer capital gains to dividends. The preference of capital gains is occasioned by the effect of taxes on capital gains compared to tax effect on dividends. Individual investors pay higher ordinary income taxes on dividends but lower tax rates on long term capital gains (Brigham and Ehrhardt, 2011).

Even if dividends and capital gains are taxed equally, the taxes paid on dividends will be far much more compared to the taxes paid on capital gains due to time value of money. A

shilling worth of tax today is more in value than the shilling in the future hence capital gains in future are preferred to dividends today (Brigham and Ehrhardt, 2011).

2.2.4 Clientele effect theory

The theory states that different shareholders of a firm prefer different dividend payout policies. Different shareholders have different income levels. Retired individuals or those with no regular source of income prefer firms that pay a high dividend payout. Such investors are usually in zero or low tax bracket hence taxes are of no concern to them. They also view such regular dividend payout as a source of regular income to take care of their needs (Petit, 1977).

Investors with a regular source of income have no urgent need for dividend issued by the firm. They prefer the firm to pay less or no dividends at all but instead offer capital gains which attracts a low tax payment as compared to the dividends. Taxes and transaction cost influence a shareholders preference for either capital gains or dividends (Petit, 1977).

2.2.5 Information Content or Signaling Hypothesis

Investors view dividend announcement as a way of the management communicating about the firm performance. An increase in dividend is a strong message of the management confidence in the future ability of the firm to make good earnings. A reduction in dividends can be regarded by some investors as a sign of financial weakness the firm could be going through (Grinblatt and Titman, 1996).

2.3 Determinants of Dividend Payout

General state of the economy. When a country's economy experiences periods of recession, uncertain economic and business conditions, a firms management may opt to retain earnings as opposed to issuing them out in order to absorb future financial shocks for the firm. The dividends issued to shareholders would reduce and hence the dividend payout ratio of the firm would be affected negatively. In periods of prosperity the management may issue a high dividend payout if there are no profitable investment opportunities available (Pandley, 1997).

State of Capital Market. If a company is sure of raising funds through the capital market with ease, it can adopt a high dividend payout ratio since it can easily raise finances from the market. There will not be an immediate need to retain earnings hence more dividends can be issued out to shareholders while the company raises funds for investment via the capital market. Existence of an unfavourable capital market forces the firm management to adopt a Conservative dividend payout. This is because the firm can not raise enough finances via the capital market and prefers to retain more of its earnings and issue out fewer dividends to shareholders.

Legal Restrictions. Companies Act has laid down various restrictions regarding the declaration of dividend. Dividends can only be paid out of the Current or past profits of the company. A firm that continuously makes losses cannot issue out dividends. The payment of dividend out of capital is illegal as it leads to impairment of capital. Hence the management has to make consideration on the legal restrictions before issuing out dividends to shareholder.

Contractual Restrictions. Lenders sometimes may put restrictions on the dividend payments to protect their interests especially when the firm is experiencing liquidity problems. If there exists legal restrictions on payment of dividends, a firm will be forced to only issue dividends which will conform to the restrictions provided for in the contract. Thus the firm may not issue dividends in spite of making good earnings.

Desire of the Shareholders. Though the directors decide the rate of dividend, it is always at the interest of the shareholders. Shareholders expect two types of returns which are Capital Gains and Dividends. Cautious investors look for dividends because it reduces uncertainty and it is also an indication of financial strength of the company. Some investors may also need regular income hence the preference of dividends to capital gains that occur at the future**.**

Liquidity position. Payment of dividend results in cash outflow. A company may have adequate earning but it may not have sufficient funds to pay dividends. The management has to consider the effect of paying out dividends on its liquidity position. If it impacts negatively on the liquidity position, the management may opt to retain earnings rather than issue out dividends**.**

2.4 Empirical Studies

Lintner (1956) conducted an empirical research on dividend pattern of 28 firms for the period of 1947-1953. He used regression analysis upon which he concluded that a major portion of dividend of a firm would be expressed in terms of a firms desired dividend payment and target payout ratio.

Fama and Babiak (1968) conducted an empirical analysis on dividend policy by individual firms during 1946-1964. They studied determinants of dividend payments. They used regression analysis, simulation and prediction tests to analyze current dividends and earnings of the firm. The conclusion was that a firm's earnings significantly determined the dividend policy of a firm. Other factors such as investment opportunities and constraints on dividend policy fairly affected the dividend policy of a firm. Black and Scholes, (1974) conducted a test on companies in Europe in regards to the effects of dividend yield and dividend policy on common stock and return of a firm. The study concluded that it was difficult to evaluate the effects of dividend policy and dividend yield on common stock and return.

Kuria (2001) conducted a study on dividend policies, growth in assets and return on assets and equity for companies at NSE. Using linear regression he found a positive correlation between dividend paid and both return on equity and assets.

Muindi (2006), in his research on the relationship between earning per share and dividend per share of equities for companies quoted at the NSE for the years 2000 to 2004 analyzed data from fourty six firms quoted at the NSE market. He analysed the data using SPSS and regression analysis model. He presented the findings which showed a significant relationship between EPS and DPS existed.

Kioko (2006) analyzed the relationship between dividend changes and future profitability of companies at NSE. His sample consisted all the firms listed at the NSE during the period 1998-2002 which formed the basis of his research. He used regression model to test the data on the fifty firms under analysis. He established that in the year of dividend change, there existed a relationship between dividend changes and future profitability. However after the second year there was an insignificant relationship between the two variables.

Thiong'o (2011) carried out and research on the relationship between dividend payment and share price for companies listed at NSE. He used stratified sampling technique to arrive at 17 firms out of the firms that were listed at the NSE market from the period 2006-2010. He used linear regression and SPSS to analyze the relationship between the two variables using the 17 firms which formed the sample for his research analysis. The

study found that a firm stock market is positively responsive to the dividend payment such that the share value improves in a few weeks after a high dividend payment.

Nyumba (2011) examined the clientele effects in dividends distributions for companies quoted at the NSE. He used descriptive research design to investigate the clientele effects of dividend distribution for companies quoted at the NSE market. He used the fifty firms listed at the NSE during the year 2006-2010. His study used regression and correlation analysis to come up with the model expressing relationship between dividend distribution, tax and capital needs. His study concluded that capital needs and tax (individual) are the main determinants of dividend distribution amongst companies. He further found out there is a direct relationship between individual tax and dividend distribution and an inverse relationship between capital needs and dividend distribution.

Mutiso (2011) evaluated the relationship between shareholders dispersion, firm size and dividend policy of firms quoted at NSE. His sample consisted of the firms listed at the NSE market during the year 2006-2010. He used regression analysis where by dividend payout was related to shareholder dispersion. This was consistent with the agency theory and supports Rozeffs (1982) hypothesis that stockholders seek greater dividend payout as they perceive their level of control to diminish.

Mutie (2011) conducted a research on the relationship between prior period dividend and financial performance of firms listed at the NSE for the period 206-2010. He used the Spearman's Rank correlation coefficient and the Pearson product moment correlation

coefficient to test for linear dependence between the two variables and how well they could be described by a monotonic function. He found that both a linear and a monotonic relationship between prior period DPS and EPS exist. The strength was medium, which could mean that prior period DPS is one among many other factors that affect subsequent period EPS.

Kihara (2011) studied the relationship between dividend announcement and return on investment. The analysis was carried out from the period 2006-2010 on the firms listed at the NSE that had issued dividends in the years 2006-2010.She used regression analysis and SPSS software to examine the relationship between the two variables. Her conclusion was that there was an insignificant relationship between the two variables.

2.5 Summary of Literature Review

Earnings volatility has been observed to impact on the dividend payout of firms. High earnings are likely to induce a firm's management to offer a higher dividend payout to shareholders. A low earnings in a certain year period reduces the cash flow available for a firm to maintain its liquidity. Several researches have been done on the area of dividend policy, determinants of dividend payout, relationship between DPS and EPS and the relationship between shareholders dispersion, firm size and dividend policy of firms quoted at NSE. However these researches have not addressed the relationship between earnings volatility and dividend payout. They have failed to show the impact of volatility in earnings on the dividend payout ratio of a company. Hence this research will be useful to show the relationship between earnings volatility and dividend payout.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methods and procedures the researcher will adopt in conducting the research. It entails the research design, the population, the sample, type of data needed and the source of data. This chapter will also explain how the data will be analyzed and the conclusions arrived at.

3.2 Research Design

The nature of the study was a correlational research study. A correlational study is a scientific study in which a researcher investigates associations between variables. It attempts to explore relationships to make predictions. It uses one set of subjects with two or more variables for each.

3.3 Population of the study

The target population consisted of all the 61 firms listed at the NSE as at December 31, 2012 as listed below in appendix 1

Firms listed are suitable for this study due to the availability of credible and authentic data useful for analyzing the research question.

3.4 Sampling Design

The research study was a census. The total companies registered in the NSE market as of December 31, 2012 were used in the analysis of data .The study comprised the years from 2008 to 2012. Therefore the research comprised the 61 companies registered in the NSE market as of December 31, 2012.

3.5 Data Collection

This research was based on secondary data. Data on a firms' dividend payout comprised the dividend paid out by company to its shareholders dividend by the earnings per share of the company. These figures were obtained from the published financial statements of a company. Further more the notes and explanations that accompany the published financial statements assisted in understanding of the dividend payout the firm utilizes year in year out. To collect data on earnings volatility, earnings of a company were first obtained through the published financial statements.

3.6 Data Analysis

Linear regression analysis 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 used was,

$Y= a+ Bx +\sum$

The analysis showed how the volatility in earnings is related to dividend payout of firms listed at the NSE. Y is the dividend payout. a, was the constant dividend payout a firm maintains irrespective of the earnings made in a year. It represented the percentage of

earnings paid out to shareholders in the form of dividends. It represented the Y intercept in the equation.

The regression coefficient B, indicated whether there was a relationship or not between earnings volatility and dividend payout. If there was a relationship, the correlation coefficient was any other value other than zero. If there was no relationship, the regression coefficient would have been zero. The sign on the regression coefficient indicated the nature of the relationship. If it's positive, it meant that as earnings increase the dividend payout ratio will also increase and vice versa. The Pearson product moment correlation coefficient was used to measure the strength of the relationship. The correlation coefficient ranges between +1 and -1 inclusive. When the correlation coefficient is between 0.5 and 1, it means that there is a strong positive relationship and vice versa. If it is between 0 and 0.5, it means there is a weak positive relationship between earnings volatility and dividend payout and vice versa.

X, was the earnings volatility of the firm in a particular year period.

Earnings volatility = $\sqrt{E1 - E0)}$

Where by;

E1 = represent current year's earnings at time zero

E0= represent expected earnings taken as the average of the 5 years under review.

The study analyzed data of the NSE listed companies for a period of five years. (2008-2012). From the literature review, there appeared to be a positive relationship between earnings and dividend payout. The data analysis aimed at establishing the effects and relationship of earnings volatility on dividend payout of a firm. The presentation of data is in tables and visual presentation in order to make it simple and easy to understand. Descriptive data is provided in form of explanatory notes.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter gives an analysis, presentation and interpretation of data that has been obtained through secondary sources. This data was obtained from the published financial statements of firms listed at the NSE market. The data analysis was based on the research objective and analyzed using the regression statistical tool by the assistance of SPSS analytical tool in order to assess the nature of the relationship between earnings volatility and dividend payout of firms listed at the NSE market.

4.2 Trends of Dividend Payout and Earnings Volatility.

The study sought to find out the trend of dividend payout and earnings volatility over the five year period (2008-2012). The table below shows the findings of the study.

Table 4.1: Trends of Dividend Payout and Earnings Volatility.

YEAR	2008	2009	2010	2011	2012
Dividend Payout	2%	23%	3%	28%	33%
Earnings Volatility	509	442	438	618	521

Source: Research data, 2013.

From table 4.1 above, it was observed that the Dividend payout varied in each of the five years under study. Earnings Volatility also varied randomly over the period under study.

Descriptive Statistics of the Data

Table 4.2

	Mean	Std. Deviation	N
Dividend payout	17.8000	14.41180	5
Earnings volatility	505.6000	73.30962	5

Source: Research data, 2013.

The table above shows the mean results and the standard deviation for the data of total firms' dividend payout and earnings volatility in the five year period under review.

4.4 Market analysis of Dividend Payout and Earnings Volatility

The study sought to examine the relationship between dividend payout and earnings volatility over the five year period for the market for the thirty nine firms studied. The regression model of the form $Y = \alpha + Bx + \beta$ was fixed to the data. The following tables show the results.

Table 4.3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.472[a]	.223	-.036	14.66699

a. Predictors: (Constant), Earnings volatility

Table 4.4

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-29.159	51.001		-.572	.608
	Earnings volatility	.093	.100	.472	.928	.422

a. Dependent Variable: Dividend payout

Source: Research data, 2013.

From tables 4.3 and 4.4 above, it was found that there is a positive relationship between dividend payout and earning volatility and the correlation coefficient was 0.472. However, the relationship is not statistically significant as the correlation coefficient is below 0.5 implying there is a weak positive relationship. From table 4.3 above, earnings volatility account for 22.3% of the dividend payout.

4.4 Summary of Findings and Interpretations

The research sought to assess the nature of relationship between earnings volatility and dividend payout of firms listed at the NSE market. From the research findings, it was established that earnings volatility has an effect on the firm's dividend payout. The relationship between the two variables was found to be a weak positive. The weak positive relationship indicated that earning volatility influenced dividend payout in the same direction but not to a statistically significant level. A weak positive relationship showed that earnings volatility had very little effect on the dividend payout of firms.

Thirty nine firms were analyzed by first collecting data on the earnings volatility and dividend payout of each firm. By the use of regression analysis and use of SPSS software the correlation coefficient of was obtained in order to establish the relationship between the variables under research. Earning volatility accounted for 22.3% of the dividend payout of the firms analyzed.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the research findings and conclusions while at the same time discusses the limitations faced while undertaking the research and gives the recommendations for further study.

5.2 Conclusions

The research study concluded that earnings volatility to some minimal extent, influenced the dividend payout of individual firms. The final correlation coefficient for all industries showed that the relationship between earnings volatility and dividend payout was not strong. Earnings volatility could therefore not be used to predict the dividend payout of individual firms. The influence of the volatility in earnings was found to be limited however by other factors characterized by the individual firm policies. Some firms that made huge profits ended up issuing a low dividend payout in the five years under review. In most firms the years when a high volatility in earnings was recorded also indicated a lower dividend payout. This gave an inverse relationship between the two variables. A high Earnings volatility therefore meant a low dividend payout for these firms and vice versa.

5.3 Recommendations

Earnings volatility was found to influence firms' dividend payout in different ways. The research found that earnings volatility accounted for 22.3% of divided payout. Further

research was found necessary to determine the other specific determinants of dividend payout for individual firms. This was due to the fact that earnings were found not to be the only factor that determined the level of dividend payout which a firm's management agreed upon.

5.4 Limitations of the Study

The study was to examine the relationship of earnings volatility and dividend payout of the listed firms at the NSE market. The research relied on data from firms that had been continually listed in the period under survey. However it was impossible to gather data on all the financial statements of the 56 firms that had been continually listed from the year 2008 to 2012. The data that was obtained was for 39 companies which was used to analyze and conclude on the research problem. The data was however thought to be enough to give a conclusive relationship between earnings volatility and dividend payout.

The other limitation was the end of year accounting activities which some firms undertook after issuing the financial statements in a certain period. These activities being the end of year balance sheet activities ended up distorting the previous information regarding earnings, DPS and EPS declared by a firm before. However, the study made use of the audited financial information that was provided by a firm for the five years under review.

5.5 Suggestions for further Research

The research study covered only five years between 2008 and 2012. Further research can be done on similar study for an extended period of time to ensure that more information is gathered to adequately find the relationship between the two variables under research. Firms that are not listed under the NSE market should also be researched on in regards to earning volatility and dividend payout in order to also understand the relationship between the two variables among firms not listed on the NSE market.

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APPENDIX 1

FIRMS LISTED AT NSE AS AT 31 DECEMBER 2012

No.	FIRM	INDUSTRY
1	Barclays Bank	Banking
2	CFC Stanbic of Kenya Holdings	Banking
3	Diamond Trust Bank	Banking
4	Equity Bank	Banking
5	Housing Finance Co.	Banking
6	Kenya Commercial Bank	Banking
7	National Bank of Kenya	Banking
8	NIC Bank	Banking
9	StandardChartered	Banking
10	Co-operative Bank	Banking
11	Eaagads	Agricultural
12	Kakuzi	Agricultural
13	Kapchorua Tea Co.	Agricultural
14	Limuru Tea Co.	Agricultural
15	Rea Vipingo Plantations	Agricultural
16	Sasini Ltd	Agricultural
17	Williamson Tea Kenya	Agricultural
18	Car & General (K)	Automobiles & Accessories
19	CMC Holdings	Automobiles & Accessories
20	Marshalls (E.A.)	Automobiles & Accessories
21	Sameer Africa	Automobiles & Accessories
22	Express ltd	Commercial & Services
23	Hutchings Biemer	Commercial & Services

24	Kenya Airways	Commercial & Services
25	Longhorn Kenya	Commercial & Services
26	Nation Media Group	Commercial & Services
27	ScanGroup	Commercial & Services
28	Standard Group	Commercial & Services
29	TPS EA (Serena)	Commercial & Services
30	Uchumi Supermarket	Commercial & Services
31	Athi River Mining	Construction & Allied
32	Bamburi Cement	Construction & Allied
33	Crown Paints Kenya	Construction & Allied
34	E.A.Cables	Construction & Allied
35	E.A.Portland Cement	Construction & Allied
36	KenGen	Energy & Petroleum
37	KenolKobil Ltd	Energy & Petroleum
38	KP&LC	Energy & Petroleum
39	Total Kenya	Energy & Petroleum
40	Umeme Ltd	Energy & Petroleum
41	British American Investment	Insurance
42	CIC Insurane Group	Insurance
43	Jubilee Holdings	Insurance
44	Kenya Re Corporation	Insurance
45	Liberty Kenya Holdings	Insurance
46	Pan Africa Insurance	Insurance
47	Centum Investment Co.	Investment
48	City Trust	Investment
49	Olympia Capital Holdings	Investment

50	Trans-Century	Investment
51	A.Baumann & Co.	Manufacturing & Allied
52	B.O.C Kenya	Manufacturing & Allied
53	BAT Kenya	Manufacturing & Allied
54	Carbacid Investment	Manufacturing & Allied
55	East African Breweries	Manufacturing & Allied
56	Eveready EA	Manufacturing & Allied
57	Kenya Orchards	Manufacturing & Allied
58	Mumias Sugar Co.	Manufacturing & Allied
59	Unga Group	Manufacturing & Allied
60	Access Kenya	Telecommunication & Technology
61	Safaricom	Telecommunication & Technology

APPENDIX II

FIRMS EARNING VOLATILITY

		2012	2011	2010	2009	2008
	Banking					
1	CFC Stanbic	811	508	457	1,294	483
2	Diamond Trust Bank	1,085	303	301	732	958
3	Equity Bank	3,787	2,564	77	2,975	3,299
4	Housing Finance Co.	320	199	43	188	286
5	KCB	3,813	2,562	98	3,192	3,085
6	National Bank Kenya	670	145	621	62	159
7	NIC Bank	1,018	663	25	803	851
8	Standard Chartered	2,616	383	77	720	2,202
9	Co-operative Bank	2,883	740	66	1,486	2,071
10	Barclays Bank	920	292	2,779	1,729	2,262
	Insurance					
1	Pan Africa Insurance	306,231	51,365	197,218	253,123	301,693
2	Jubilee Holdings	748,675	374,564	454,174	754,825	822,590
3	Kenya Re Corporation	1,529,698	603,988	6,605	646,442	285,871
	Construction & Allied	-				
1	Athi River Mining	45,960	56,538	390,871	955,062	666,689
2	Bamburi Cement	4,717,000	180,000	1,317,000	95,000	3,125,0000
3	Crown Paints Kenya	37,002	74,044	14,272	19,381	77,393
4	E.A.Cables	290,612	282,436	98,381	9,293	115,852
5	E.A.Portland Cement	1,413,883	1,121,644	887,757	1,238,698	58,703
	Telle & Technology					
1	Access Kenya	29,966	12,326	129,361	29,475	82,245
2	Safaricom	437,325	94,040	2,083,105	2,528,172	788,353
	Energy & Petroleum					

1	KenGen	1,058,927	1,472,452	401,737	848,162	2,977,804
2	KenolKobil Ltd	6,527,719	3,030,687	1,533,496	1,051,361	912,175
3	KP&LC	1,006,595	736,442	233,246	258,029	1,718,253
4	Total Kenya	567,963	437,257	550,383	116,763	338,072
	Investment					
1	Centum Investment	133,917	1,087,427	924,351	2,130,400	252,537
2	Trans-Century	182,880	367,619	1,020,555	323,489	512,326
	Commercial & Services					
1	Kenya Airways	106,000	2,953,000	2,531,000	9,277,000	3,899,000
2	Nation Media Group	912,520	254,620	188,180	582,980	395,980
3	TPS EA (Serena)	313,994	191,691	1,470,211	361,786	602,737
4	Uchumi Supermarket	113,200	253,700	252,192	4,085	396,776
5	ScanGroup	140,456	312,871	36,968	202,468	287,827
	Automo. & Accessories					
1	Sameer Africa	25,234	25,722	82,622	39,632	43,479
2	Car & General (K)	3,369	112,717	3,857	75,609	44,334
	Agricultural					
1	Rea Vipingo Plantations	72,984	281,460	178,945	97,351	78,147
2	Sasini Ltd	671,752	97,292	446,089	14,607	337,564
3	Kakuzi	17,312	225,971	37,037	32,121	139,500
	Manufacturing & Allied					
1	East African Breweries	1,887,276	275,176	461,276	1,036,372	114,451
2	Mumias Sugar Co.	86,726	1,988,749	527,022	489,433	885,568
3	Kenya Orchards	584	1,051	900	2,536	339
	Total Industrial average	508,517	442,269	438,216	617,923	521,234

APPENDIX III

FIRMS DIVIDED PAYOUT

		2012	2011	2010	2009	2008
	Banking					
1	CFC Stanbic	0.09	0.12	0.08	0.71	0.21
2	Diamond Trust Bank	0.13	0.15	0.14	0.24	0.27
3	Equity Bank	0.42	0.38	0.21	0.26	0.28
4	Housing Finance Co.	0.43	0.44	0.52	0.29	0.38
5	KCB	0.51	0.56	0.51	0.54	0.33
6	National Bank Kenya	0.67	0.31	0.04	0.07	0.06
7	NIC Bank	0.04	0.05	0.05	0.08	0.07
8	Standard Chartered	0.81	0.8	0.73	0.73	0.88
9	Co-operative Bank	0.29	0.27	0.25	0.23	0.12
10	Barclays Bank	0.62	1.01	0.69	0.56	0.49
	Insurance					
1	Pan Africa Insurance	0.27	0.32	0.14	0	0.85
2	Jubilee Holdings	0.13	0.15	0.11	0.24	0.27
3	Kenya Re Corporation	0.06	0.18	0.17	0.27	0.25
	Construction & Allied					
1	Athi River Mining	0.2	0.17	0.19	0.06	0.25
2	Bamburi Cement	0.36	0.62	0.66	0.34	0.35
3	Crown Paints Kenya	0.2	0.17	0.32	0.27	0.83
4	E.A.Cables	0.3	0.73	0.18	0.45	0.44
5	E.A.Portland Cement	0.03	0	-0.04	0	0.21
	Telle & Technology					
1	Access Kenya	0.43	0.48	-6.86	0.55	0.3
2	Safaricom	0.63	0.61	0.53	0.19	0.29
	Energy & Petroleum					
1	KenGen	0.44	0.23	0.1	0.58	0.04

2	KenolKobil Ltd	-9.09	0.48	0.26	0.37	0.64
3	KP&LC	0.93	0.24	0.17	0.2	0.18
4	Total Kenya	-0.14	-4.42	0.33	0.92	0.62
	Investment					
1	Centum Investment	0.001	0.81	0.003	-0.14	0.28
2	Trans-Century	0.15	0.35	0.04	0.3	0.47
	Commercial & Services					
1	Kenya Airways	0.12	0.13	0.12	0.11	0.18
2	Nation Media Group	0.62	0.62	0.53	0.7	0.57
3	TPS EA (Serena)	0.39	0.31	0.06	0.3	0.64
4	Uchumi Supermarket	0.21	0	0	0	0
5	ScanGroup	0.26	0.18	0.17	0.35	0.48
	Automo. & Accessories					
1	Sameer Africa	0.52	0.68	0	0	0
2	Car & General (K)	0.07	0.07	0.06	0.08	0.07
	Agricultural					
1	Rea Vipingo Plantations	0.21	0.09	0.45	0.08	0.29
2	Sasini Ltd	-1.84	0.41	0.09	0.09	0
3	Kakuzi	0.45	0.16	0.27	0.13	0.07
	Manufacturing & Allied					
1	East African Breweries	0.62	0.77	0.78	0.77	0.69
2	Mumias Sugar Co.	0.38	0.32	0.4	0.4	0.41
3	Kenya Orchards	0.22	0.08	0.1	0.02	0.01