THE RELATIONSHIP BETWEEN PRICE EARNINGS RATIO AND STOCK RETURNS OF COMPANIES LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

OGELLO CATHERINE AUMA

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DECLARATION

This Research Project is my original work and has not been presented for an award of a degree in any other university or institution of learning.

Signature: ..... Date: ……

Catherine Auma Ogello

D61/75881/2012

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God Bless you all!

DEDICATION

This project is first dedicated to God for His blessings throughout the period of this study.

To my husband, Jos Openda and sons, Albert, Erwin and Denis for their love, support and guidance and for all experiences we have been through together. May the Almighty God continue to bless you abundantly.

ABSTRACT

The main objective of this study was to examine the relationship between price earnings ratio and stock returns for companies listed at the Nairobi Securities Exchange. For this purpose secondary data obtained from the annual reports and financial statements of 61 companies listed at the NSE for the period January 2009 to December 2013 was analyzed. A regression model was used to establish the relationship between price earnings ratio and stock returns, variables were price earnings ratio, market to book value ratio and size of the firms as measured by total assets. Tests of significance were carried out for all variables using t-test at 95% level of significance. The model examined in this study gave a coefficient of determination (R^2) of 35.6% and all the independent variables are positively related to the stock return. The study concluded there is a significant relationship between price earnings ratio and stock returns for companies listed at the NSE, majority of the firms had low P/E ratios resulting in higher stock returns, that firms with lower reinvestment needs have higher price earnings ratios than firms with higher reinvestment rates, that stocks with high market to book value ratios have significantly higher returns than stocks with low market to book values ratios and that there is a significant relationship between total assets and stock returns of firms. It is important to note that many other factors for example interest rates and industry performance affect stock returns and investors should consider them when making investment decisions. The study recommends that due to the importance of price earnings ratios in investment decisions, care should be exercised in determining what the correct and comparable earnings per share of each company , that there is need for investors to carefully use market to book ratio to determine the differentials between net assets of the firm and the valuation that the market assigns to them as it reflects the premium (or discount) that the market gives to the firm on its net assets and, as such, reflects the efficiency with which the market views the firm as being managed which in turn affect stock returns.

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LIST OF ABBREVIATIONS

ALR……Asset-Liability Ratio

APT…… Arbitrage Pricing Model

ANOVA……. Analysis of Variance

BTM……Book Value to Market Value

CDSC……..Central Depository and Settlement Corporation

CES…….Current Equity Scale

CMA……Capital Markets Authority

DPS…… Dividends Per Share

DY……..Dividend Yield

E/P……..Earnings to Price Ratio

EPS…….Earnings Per Share

EY…….. Earnings Yield

GLS…… Generalized Least Squares

IPE……. Industry Average Price Earnings Ratio

MV/BV…….. Market to Book Value Ratio

NSE…… Nairobi Securities Exchange

NYSE……. New York Securities Exchange

P/E……..Price Earnings Ratio

ROA……Return on Net Assets

SER…….Share Earning Rate

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Monther and Kaothar (2010) stock securities markets play an important role in the economies of most countries. Indeed, among others, the key function of the stock market is to provide an exchange in which buyers and sellers interact for the purpose of trading in shares and other securities issued by publicly traded companies. According to Wang (2010) in the course of exchange, stock market prices change according to the market activity as influenced by the forces of demand and supply.

If there is a high demand for a given stock, its price will move upwards. Conversely if there are more people who want to sell than buy, the market experiences excess supply (sellers) than demand (buyers), and the effect of this will push the prices downwards presupposing that the market forces are allowed to operate freely. The changes in stock prices and the trend of changes have always been of interest in the capital market given their importance in determining the market returns of the respective companies.

1.1.1 Price Earnings Ratio

According to Solomon and Pringle (1978) Price Earnings (P/E) ratio is one of the most commonly used key indicators in the stock market. The P/E ratio is a stock's current price divided by the company's trailing 12-month earnings per share from continuous operations. The P/E ratio of a company, which is a comparison of the cost of the company's stock and its trailing 12-month earnings per share, is calculated by dividing these two figures. There are multiple versions of the P/E ratio, depending on whether

earnings are projected or realized, and the type of earnings. Trailing P/E uses net income for the most recent 12 month period, divided by the weighted average number of common shares in issue during the period. Forward P/E uses estimated net earnings over next 12 months. By comparing price and earnings per share for a company, one can analyze the market's stock valuation of a company and its shares relative to the income the company is actually generating.

According to Philips (1983) the Price Earnings ratio enables a comparison to be made between the earnings per share and the market price of the share. This ratio can be seen as the number of years that it would take, at the current share price and rate of earnings, for the earnings from the share to cover the price of the share, and is, therefore, in effect a capitalization factor. The ratio indicates how much an investor is prepared to pay for the business earnings and is one of the most common methods of share valuation. The value of the ratio depends mostly on the past movements in earnings and interest rates and a relatively high value would suggest that the prospects for an industry are optimistic.

1.1.2 Stock Returns

According to Moridi and Mousavi (2009) stock market return is one of the most important factors in choosing the best investment. In any investment, investors are seeking to obtain returns and trying to get information from the future amount of stock returns of companies. One of the most common methods to analyze financial information is to prepare financial ratios. In fact, financial ratios are the summary of financial reports of companies which provide much information content from the internal situation of company.

According to Namazi and Rostami (2006) among the financial ratios, a set of market ratios exist for corporate performance evaluation that investors during making their investment decisions have particular attention to it and the most important is earnings per share ratio (EPS) which shows earnings that the company has achieved in a fiscal period for an ordinary share and often is used to evaluate the profitability and risk associated with earning and also judgments about stock prices.

The formula for the total stock return is the appreciation in the price plus any dividends paid, divided by the original price of the stock. The income sources from a stock are dividends and its increase in value. The first portion of the numerator of the total stock return formula looks at how much the value has increased (P_1 - P_0). The denominator of the formula to calculate a stock's total return is the original price of the stock which is used due to being the original amount invested.

1.1.3 Relationship between Price Earnings Ratio and Stock Returns

Price to earnings per share ratio indicates the willingness of investors to cash purchase of companies' stock according to the reported earnings. The increase in this ratio shows satisfactory development of company and this ratio is high for the institutions which expected to grow rapidly in the future. P/E ratio increases when investors are willing to pay more per unit of earnings while the earnings remain stable. P/E ratio also grows when both the stock price and the earnings per share increase, however, the increase of stock price must be sharper than the increase in the earnings per share.

The price earnings ratio does not change when there is a balance between the growth of the stock price and the earnings per share. On contrary, P/E ratio declines when the

willingness of investors to pay price per unit falls as well as when the price paid per stock by investors increases in slower pace than the earnings per share. A high P/E ratio usually indicates that the market will pay more to obtain the company's earnings because it believes in the firm's ability to increase its earnings. Companies in those industries enjoying a surge of popularity tend to have high P/E ratios, reflecting a growth in orientation. A low P/E ratio indicates that the market has less confidence that the company's earnings will increase.

According to Nicholson (1960) the effect of P/E ratio operate in such a way that firms with low ratios between stock price and stock earning consistently provide higher returns than those with high price-earnings ratios. Fama and French (1992) concluded that the earning-price ratio is significant when the unique explaining variable for the cross-section of stock returns is, but its significance disappears when book-to-market ratio is also taken into account.

In the same vein Damodaran (2006) noted that other things held equal, higher growth firms will have higher P/E ratios than lower growth firms. Other things held equal, higher risk firms will have lower PE ratios than lower risk firms and other things held equal, firms with lower reinvestment needs will have higher P/E ratios than firms with higher reinvestment rates. However, he also reminds that other things are difficult to hold equal since high growth firms tend to have risk and high reinvestment rates. P/E ratio is influenced by, a company's capital bonus payout rate (b), dividend growth rate (g), industry average price-earnings ratio (IPE), equity scale (G), current equity scale (CES),

current equity rate (CER), asset-liability ratio (ALR), equity ratio (L), turnover rate of total assets (ATO), return on net assets (ROA) and share earning rate (SER).

1.1.4 Nairobi Securities Exchange

The NSE was constituted in 1954 as a voluntary association of stockbrokers registered under the Societies Act (NSE, 1997). The newly established stock exchange was charged with the responsibility of developing the stock market and regulating trading activities. Through stringent listing requirements the market promotes higher standards of accounting, resource management and transparency in the management of business. The NSE is regulated by Capital Markets Authority (CMA, 2011) which provides surveillance for regulatory compliance. According to Ngugi (2005), the exchange has continuously lobbied the government to create conducive policy framework to facilitate growth of the economy and the private sector to enhance growth of the stock market.

The NSE is also supported by the Central Depository and Settlement Corporation (CDSC) which provides clearing, delivery and settlement services for securities traded at the Exchange. It oversees the conduct of Central Depository Agents comprised of stockbrokers and investments banks which are members of NSE and Custodians (CDSC, 2004). These regulatory frameworks are aimed to sustain a robust stock market exchange that supports a cogent and efficient allocation of capital allowing price discovery to take place freely based on the market forces. The Nairobi Securities Exchange's All Share Index soared 43.7% in US dollar terms, ranking it among worlds very best. While big names like Safaricom and ARM Cement recorded terrific performances in 2013, the

year's most explosive price gains came from insurance firms and investment holdings companies.

1.2 Research Problem

According to Monther and Kaothar (2010) the stock exchange provides investors with an efficient mechanism to liquidate or make investments in securities. However emerging Equity Markets have witnessed significant changes in terms of technology development, investor profile and investment climate as a result of economic reform policies. These changes are expected to have profound effects on the stock market prices. The turbulent financial market environment creates uncertainty amongst the investors as confidence is eroded. According to Wang (2010) the changes in stock prices and the trend of changes have always been of interest in the capital market given their effect on the stock market stability and strategies adopted by investors.

The NSE has seen drastic volatility in its stock prices as a reaction to market environment which have ranged from financial crisis of 2008, political election, other government activities and the general performance of the Kenyan economy. This has affected P/E ratio of most securities. However, NSE has continued to see increased number of listed companies such as Safaricom and ARM Cement and robust performance of some listed companies particularly from insurance firms and investment holdings companies in 2013. The increased market volatility in the securities market had a direct impact on the price of securities. This negatively affected some small or individual investors who experienced shrinkage or altogether lost their investment in the market. This was because some of them are not keen on the changes in stock prices and the trend of changes hence does not

adjust their investment as a response to market fundamentals. Despite Price-Earnings ratio being of considerable interest yet little is documented about the relationship between P/E ratio and market returns of companies listed on Nairobi Stock Exchange.

Fun and Basana (2012) investigated the relationship between the ratio of price to earnings and stock return in 45 companies listed in the Indonesia Stock Exchange during the period 2005 to 2010. The results indicated that there was no significant relationship between P/E ratio and stock returns. But in Maxwell and Kehinde (2012) study that conducted on the 50 companies listed in the Nigerian Stock Exchange during the period 2001 to 2006, reached to the conclusion that there was a significant linear relationship between price to earnings ratio and stock return. Musyoki (2011) examined the predictability of accounting earnings using changes in share prices of companies listed at the Nairobi Stock Exchange in the finance and investment sector. The study covered the period between the year 2001 and 2005. The study indicated mixed results, with some companies showing a strong positive correlation and others weak correlation.

Makiya (2011) analyzed factors influencing stock prices for firms listed in the Nairobi Stock Exchange covering the period the period from January 2008 to December, 2010 using inflation, exchange rates, interest rates and money supply. The result showed that exchange and interest rates had negative correlation to stock prices whereas inflation and money supply had a positive correlation. Hence there is limited information on the effect of price earning ratios and market returns for listed companies in Kenya. Hence this study seeks to examine the relationship between the price earnings ratio and stock return of companies listed on Nairobi Securities Exchange. The study will attempt to answer the

following research question: what is the relationship between price earnings ratio and stock returns of companies listed on Nairobi Securities Exchange?

1.3 Objective of the Study

To establish the relationship between the price earnings ratio and stock returns of companies listed at Nairobi Securities Exchange.

1.4 Value of the Study

Results of this study will be of significance to Nairobi Securities Exchange management, analysts and investors in determining investment decisions and strategies so as to ensure investors earn systematically above average return by investing in appropriate stocks. External investors and shareholders will be able to know the main variables that affect the stock earnings and to observe firm's performance before making the decision on whether to buy or sell stock. Professional managers who can consider these determinants of earnings to establish the optimal financing vehicle that helps achieve the company's objectives.

Lenders may use the results in evaluating the firm's market returns before giving corporate financing loans with particular emphasis on the level of risk involved. Theoretically, the study will enrich existing knowledge on price earning ratio and stock returns of listed companies in Kenya. The study will also be of value to academicians who may wish to carry out further research on the relationship between the price earnings ratio and stock return of companies listed in the NSE.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, literature, which is related to and consistent with the objective of the study, is reviewed. Important theoretical and practical problems are brought out; relevant literature on the aspects pertaining to the relationship between the price earnings ratio and market returns of companies listed on Nairobi Securities Exchange is discussed.

2.2 Theoretical Foundation

The study was based on the Technical Analysis Theory, Market Efficiency Theory and Value investing theory

2.2.1 Technical Analysis Theory

According to Brock, Lakonish and LeBaron (1992) technical analysis is the forecasting of the future financial price movements based on an examination of past price movements. Technical analysts believe that shifts in supply and demand can be detected in charts of market action. Technical Analysis uses a wide variety of charts that show price over time and it can help investors anticipate what is likely to happen to prices over time.

It came into widespread use before the period of extensive and fully disclosed financial information, which in turn enabled the practice of fundamental analysis to develop. In Kenya the use of trading rules to detect patterns in stock prices is probably as old as the stock market itself. All major brokerage firms publish technical commentary on the

market and individual securities and many of the Newsletters published by various experts are based on technical analysis.

2.2.2 Market Efficiency Theory

Fama (1991) defined efficient market as one which fully reflects all the available information, past, present and future in the asset prices. According to Basu (1977) in an efficient capital market, security prices fully reflect available information in a rapid and unbiased fashion and thus provide unbiased estimates of underlying values.

There are three forms of market efficiency, namely weak form market efficiency, semi-strong form market efficiency and strong form market efficiency. Weak form market efficiency assumes that current stock prices reflect all the past information available including historical sequence of price, rates of return, trading volume and market generated information. This implies that future share prices cannot be forecasted using past rates of return. The semi-strong form market efficiency argues that the current prices of stock reflect all the available information content of historical prices and the publicly available information about corporations. This implies that information is quickly impounded in the share prices as they become available. The investors who base their decisions on new information cannot make above average profit after the information is made. The strong form suggests that security prices reflect the available information and even private information. No group of participants has monopolistic access to the relevant information hence, no one makes above average profits. Seyton (1998) provides sufficient evidence that insiders profit from trading on information not already incorporated into prices hence, the strong form does not hold in a world of an even playing field.

While there is substantial empirical evidence supporting the efficient market hypothesis, many still question its validity. One such group believes that price-earnings P/E ratios are indicators of the future investment performance of a security.

Proponents of price-ratio hypothesis claim that low P/E ratio securities tend to outperform high P/E ratio stocks. In short prices of securities are biased and the P/E ratio is an indicator of this bias. A finding of returns on stocks with low P/E ratios tend to be larger than warranted by underlying risks even after adjusting for any additional search and transaction costs and differential taxes would be inconsistent with financial market hypothesis.

2.2.3 Value Investing Theory

Value investing theory is derived from the ideas of Graham and Dodd (1934). The main idea involves buying securities whose shares appear underpriced by some of its fundaments. Such securities might be traded at discounts of book value, sales or earnings multiples. The essence of value investing is buying stocks at less than their intrinsic value, where intrinsic value is the discounted value of all future distributions. This approach has evolved significantly since 1970s. The most successful Graham's student is Warrant Buffet, who runs Berkshire Hathaway.

One of the investments strategies is derived from undervalued basic fundaments which are expected to determine the stock price. This is typical for stocks traded with discount and at low multiples of sales (Price to Sales), book value (Price to Book Value), earnings (Price Earnings) and cash flow (Price Cash Flow). From long term prospective, the investment strategies based on the investments into stocks with low multiples result in comparably higher annual return. These studies consistently demonstrate that value

investing works well and generally outperforms the market averages over the long-term. Stocks with low P/B ratios have higher average annual returns than growth stocks which are identified as those with high P/E ratios. To implement this theory an investor could buy a group of stocks with the lowest P/E ratios.

According to Fama and French (1992) in theory, market-beating results are achievable over longer time horizons because eventually, the market will realize that these stocks are underpriced, and as more investors recognize this fact the stock price will increase.

2.3 Determinants of Stock Returns

According to Fama (1970) the return on stocks is highly sensitive to both fundamentals and expectations. It is often observed that stock prices tend to fluctuate with economic news, and this observation is supported by empirical evidence indicating that macroeconomic variables have explanatory power on stock returns. The level of return realized or expected from an investment is dependent on number of variables. The key factors are internal features of the firm and external factors. The internal factors can be the nature of investment, quality of management, and type of financing required and others, whereas external factors can be price controls, political events, inflation, and interest rate among other.

2.3.1 Price Earnings Ratio

Price earnings ratio is a valuation ratio of a company's current share price compared to its earnings per share. The P/E ratio is still the most widely used valuation tool in the stock markets. Analysts use it pricing new shares in an initial public offering. The P/E ratio is also used as a measure of relative value when comparing listed companies. In general, a

high P/E ratio suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E ratio.

A large number of papers provide evidence that low P/E ratio stocks tend to outperform high P/E ratio stocks. In one of the earliest studies documenting this anomaly, Basu (1975, 1977) finds that returns on portfolios of low P/E ratio stocks are higher on average than returns on higher P/E ratio stocks, even after adjusting for risk. Goodman and Peavy (1983, 1986) updated Basu's study to address biases in the computation of systematic risk introduced by infrequent trading and find that the low P/E ratio effect persists. Levy and Lerman (1985) incorporate transactions costs and find a low P/E ratio effect only if transactions costs are minimal.

2.3.2 Market to Book Value Ratio

The market to book value ratio (MV/BV) compares the book value and market value of the stock. It indicates whether a stock is undervalued or overvalued. MV/BV is traditionally interpreted as an indicator of expected return on a share. In Fama and French (1992, 1993) multi-factor asset pricing model, the M/B is a determinant of stock returns. They show that the stocks of low M/B firms tend to earn higher returns. They argue that low MV/BV firms might be in financial distress and investors would demand a larger risk premium from the stocks of these firms. This issue is controversial in the literature. Petkova and Zhang (2005) find empirical support for the Fama-French hypothesis by documenting that investors consider low MV/BV firm stocks to be riskier in "bad" times.

Raj and Ramesh (1992) examined the price to book ratio effect in Japanese market. In this study they have observed that stocks with high MV/BV have earned low returns

whereas stocks with low MV/BV have high low stock returns. This study has observed inverse relationship between stock return and price to book ratio in Japanese market. Simlai (2009) examined and reinvestigated the performance of common stock return with two popular variables size and book to market ratio. According to their findings incorporation of time varying conditional variance can significantly supports the impact of the three risk factors, he also concluded that, because of this findings Fama and French model is successful and unaffected by the incorporation of time varying investment opportunity set. His study also finds positive and significant relationship between size and stock return.

2.3.3 Size of the Company

The size of a company also known as market capitalization represents the magnitude of that company. One of the most discussed relationships is the one between a company's size and the return on its stock. This anomaly, now known as the size effect, has been the focus of recent studies conducted by Fama and French (1992) as well as Daniel and Titman (1997); however the seminal work was performed by Banz (1981). He introduced the concept of a "size effect" on the New York Stock Exchange (NYSE). His findings show that the size of a firm and the return on its common stock are inversely related. In addition, he also found that smaller firms always obtain higher returns than larger firms on the NYSE.

Drew and Barry (2001) find that the factors of firm size and book-to-market value affect the expected stock returns based on the research from 35 emerging equity markets during the period from 1985 to 2000. They conclude that there is a negative relationship between

firm size and stock returns, and is a positive relationship between book-to-market value and stock returns. L'Her et al. (2004) find that factor of firm size is significantly stronger variable related to stock return on January rather than in any other months in the Canadian stock market using the approach of Fama's and French's three factor pricing model during July 1960 to April 2001. Furthermore, they also find that the factor of book-to-market value has a positive and higher significant effect in down markets.

2.3.4 Earnings per Share

Earnings per Share (EPS) is computed by dividing earnings after interest, the depreciation and tax by total number of outstanding shares. Dividend may be distributed out of these earnings; whether it is distributed as dividend to shareholders or not, it belongs to the shareholders. Using different methodologies, a considerable number of studies have been conducted investigating the relationship between accounting earnings and stock returns. Ball et al. (1993) using annual earnings and return data from 1950 to 1988 for the US market, documented that changes in earnings have systematic economic determinants that are likely to be associated with variation in securities' expected returns, particularly since earnings is the accounting return on equity. Seetharaman (1995) stated that earnings per share reflected the good or bad position of the company and its increase was reflected not only in the market price in the stock exchange but also in the P/E ratio, dividend cover, dividend yield and earnings yield.

Vafeas et al. (1998) provided evidence for the Cyprus stock market and suggested that earnings levels as well as changes in earnings are important in explaining stock returns in an emerging stock market. Lamont (1998) studied the relationship between earnings and

expected returns. He reported that both dividends and earnings have the ability to forecast returns and earnings contain information because they are correlated with business conditions.

2.3.5 Interest Rates

High interest rates decrease the present value of future cash flows, thus reducing the attractiveness of investment. Therefore, according to economic theory, the increase in interest rates should lead to a drop in stock prices. Interest rate is one of the important macroeconomic variables, which is directly related to economic growth.

Zhou (1996) also studied the relationship between interest rates and stock prices using regression analysis. He found that interest rates have an important impact on stock returns, especially on long horizons, but the hypothesis that expected stock returns move one-for-one with ex ante interest rates is rejected. In addition, his results show that long-term interest rate explain a major part of the variation in price-dividend ratios and suggests that the high volatility of the stock market is related to the high volatility of long-term bond yields and may be accounted for by changing forecasts of discount rates

Uddin and Alam (2007) examined the linear relationship between share price and interest rate, share price and changes of interest rate, changes of share price and interest rate, and changes of share price and changes of interest rate on Dhaka Stock Exchange. For all of the cases, included and excluded outlier, it was found that interest rate has significant negative relationship with share price and changes of interest rate has significant negative relationship with changes of share price.

2.3.6 Inflation Rate

Inflation is a rise in the general level of prices, it reduces the real value of money, thereby reducing the expected cash inflow from an asset. Investors who own some asset are exposed to changes in inflation, since their payment at the end of period depends on inflation during the holding period. Thus, inflation is expected to affect negatively the stock prices. Along with full employment, maintaining low inflation is the main economic policy task in most countries.

Fama and Schwert (1977) examine the effect of inflation on stock returns in New York Stock Exchange between the years of 1953-1971 and find evidence that stock returns are negatively affected by both expected and unexpected inflation in the U.S. and Fama (1981) offers an explanation for negative relationship between stock returns and inflation through a hypothesized chain of macroeconomic linkages. A reduction in economic activity negatively affects the future corporate profits and stock prices. The resulting negative relationship between stock returns and inflation is referred to as "Proxy effect".

Adrangi et al. (2002) document a negative relationship between stock returns and inflation rates for Brazil by employing Johansen and Juselius cointegration tests. Their study verifies that stock prices and general price levels also show a strong long-run equilibrium with real economic activity and each other. These findings support Fama's Proxy hypothesis in the long-run.

2.4 Empirical Review

An empirical review is an analysis of available studies related to topic of concern. It enables the researcher gain a thorough understanding of the field in which he/she is

conducting the research. In this study, empirical review has been categorized into international evidence and local evidence.

2.4.1 International Evidence

Basu (1977) tried to find the relationship between the investment performance of common stock and their P/E ratio. He studied the price performance of New York Securities Exchange (NYSE) industrial firms during the period September 1956 to August 1971. He included an average of 500 assets for each of the 14 years, two or more portfolios were computed whereby risk-return relationship was weighted against each other and their performance measured in predetermined terms. P/E ratio for every sample was calculated and they were ranked. He found that the returns on common stocks were inversely, linearly and statistically significantly related to their P/E ratios. To put it another way, low P/E ratios predict future higher than normal returns. Considering the inter-quartile range, dispersion of the P/E ratio over the 14 years period the low P/E ratio portfolio earned a return of 16.3% per annum compared to 9.3% for the high P/E ratio portfolio.

Lau et al. (2002) investigated the relationship between stock returns and systematic risk with firm size, the ratio of book value to market value of equity, price to earnings ratio, the ratio of cash flow to price and sale growth in both Malaysia and Singapore. Their studied sample is 82 companies listed in the Singapore Stock Exchange and 163 companies listed in the Kuala Lumpur Stock Exchange during the period 1988-1996. Results for Singaporean companies are indicating that there is no significant relationship between the ratio of book value to market value (BTM) and earnings to price ratio (E/P)

with stock returns. The results for Malaysian companies show that there is significant and positive relationship between the ratio of earnings to price (E/P) and stock returns. But the relationship between the ratio of book value to market value (BTM) and stock returns is not significant.

Kheradyar and Ibrahim (2011) investigated the role of financial ratios as empirical predictors of stock returns in the 100 companies listed on the Malaysian Stock Exchange during the period 2000 to 2009. In their study they variables of dividend yield (DY), earnings yield (EY) and Book-to-market ratio (BTM) as financial ratios to predict stock returns. To estimate the regression model used from panel data and generalized least squares (GLS) methods. Research findings indicate that there is a significant and positive relationship between financial ratios and stock return of next year. Also, the results showed that the ratio of book value to market value is superior against dividend yield and earnings yield in explaining stock return of next year.

Mirfakhr et al. (2011) studied the relationship between financial variables and stock price through Fuzzy regression in Iran Khodro Company (Accepted in Tehran Stock Exchange) during the years 1998 to 2007. They used the variables of earnings per share (EPS), dividends per share (DPS) and the ratio of price to earnings as financial variables. The research findings showed that there is a significant and positive relationship between earnings per share (EPS) and stock price, but the relationship between cash dividend per share (DPS) and the ratio of price to earnings (P/E) with stock price is negative and significant.

Zeytinoglu et al. (2012) tested the effects of market ratios on the stock return of current and future year of insurance companies listed in the Istanbul Stock Exchange during the years 2000 to 2009. In this study, the market ratios include price to earnings ratio (P/E), ratio of market value to book value (MV/BV) and earnings per share (EPS). Research findings suggest that there is no significant relationship between market ratios and stock return of current and future year and only the relationship between the MV/BV ratio and stock return of current and future year is positive and significant.

Fun and Basana (2012) investigated the relationship between the ratio of price to earnings (P/E) and stock return in 45 companies listed in the Indonesia Stock Exchange during the period 2005 to 2010. The results indicate that there is no significant relationship between the ratio of price to earnings (P/E) and stock returns. But in Maxwell and Kehinde (2012) study that conducted on the 50 companies listed in the Nigerian Stock Exchange during the period 2001 to 2006, reached to this conclusion that there is a significant linear relationship between price to earnings ratio (P/E) and stock return.

2.4.2 Local Evidence

Ndete (1999) conducted a study at the NSE to find out if the P/E ratio is an indicator of investment in common stocks. He sought whether there was a relationship between P/E ratio and three other variables; growth in earnings, variation in earnings and dividend payout ratio. He obtained data of 30 companies quoted at the NSE and used multiple regression analysis to establish the nature and type of relationship, if any between the variables. The study revealed a weak relationship between the P/E ratio and earnings growth, variation in earnings and dividend payout ratios.

Muthui (2003), decided to investigate whether there is any significant difference in returns between low P/E ratio stocks and high P/E ratio stocks for companies quoted in the NSE. He computed the P/E ratios of companies that constituted the NSE 20 share index and divided them into three groups; high, medium and low. Data was obtained from the companies' financial statements available at the NSE from which share returns and risk were computed. He concluded that there was no statistically significant difference in returns of shares with low P/E ratio and those of high P/E ratio

Makiya (2011) analyzes factors influencing stock prices for firms listed in the Nairobi stock exchange covering the period the period from January 2008 to December, 2010 using inflation, exchange rates, interest rates and money supply. The period is selected so as to use the most recent data, to make the findings more current. The study uses secondary data the main source of which is the NSE and the Central Bank of Kenya statistics. Multiple regression formula was applied to estimate effect of the selected factors on stock prices. The regression results show that the factors of inflation, exchange rates, and interest rates were significant except money supply which although it had a positive correlation, the relationship was not significant. The result shows that exchange and interest rates had negative correlation to stock prices whereas inflation and money supply had a positive correlation. Factor models observe the sensitivity of an asset return as a function of one or more factors. To formulate appropriate investment strategy, investors constantly review current financial and economic conditions, based on which future trends can be forecast considering the needs of the investors.

Musyoki (2011) examines the predictability of accounting earnings using changes in share prices of companies listed at the Nairobi Stock Exchange in the finance and investment sector. The study covered the period between the year 2001 and 2005. The data was obtained from the Nairobi Stock Exchange, where the information selected were Earnings per share, Dividend yield, Price to earnings ratio and the share price. This information was standardized using logarithm and analyzed using the SPSS program. The OLS was used to come up with an equation. Eleven companies were analyzed and all of them had positive change towards the accounting earnings in relation to the share price. Additionally, the relationship between accounting variables and the Nairobi Stock Exchange information indicated mixed results, with some companies showing a strong positive correlation and others weak correlation.

2.5 Summary of Literature Review

One of the relative measures that guide investors in investment decisions is the price to earnings per share. As a matter of fact, understanding the relationship of price to earnings per share is important in the risks and returns of investors' decision. P/E ratio has been considered as an important indicator of the state of stock prices; both at an aggregate (index of stock prices) and individual stock level. Current high/low P/E ratios are seen as precursor to decrease (increase) in future stock prices.

Fun and Basana (2012) investigated the relationship between the ratio of price to earnings (P/E) and stock return the results indicate that there is no significant relationship between the ratio of price to earnings (P/E) and stock returns. Maxwell and Kehinde (2012) study that conducted on the 50 companies listed in the Nigerian Stock Exchange concluded that

there is a significant linear relationship between P/E and stock return. Musyoki (2011) examined the predictability of accounting earnings using changes in share prices of companies listed at the Nairobi Stock Exchange in the finance and investment sector. The study indicated mixed results, with some companies showing a strong positive correlation and others weak correlation.

Makiya (2011) analyzes factors influencing stock prices for firms listed in the Nairobi stock exchange using inflation, exchange rates, interest rates and money supply. The result shows that exchange and interest rates had negative correlation to stock prices whereas inflation and money supply had a positive correlation. It is evident that stock returns are affected by a varying list of factors and not just P/E ratio in isolation, however local studies have not adequately addressed whether P/E ratio is a strong predictor of stock returns. Therefore this study seeks to find a significant correlation between P/E ratio and stock returns of companies listed in the NSE. We assume that there is a significant relationship between them.

CHARPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlined the research methodology by giving a description on the source of data, method used to conduct the research, the population and sample technique of collecting and analyzing the data.

3.2 Research Design

Research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance and to the research purpose with economy in the procedure. This study adopted a descriptive research design. Descriptive research is a statistical study to identify patterns, trends in a situation, but not the casual linkages among its different elements.

According to Aggarwal (2008) descriptive research is devoted to the gathering of information about prevailing conditions or situations for the purpose of description and interpretation. This type of research method is not simply amassing and tabulating facts but includes proper analyses, interpretation, comparisons, identification of trends and relationships. The elements and variables that were studied were observed without making any attempt to control or manipulate them. The variables in this study were stock return, P/E ratio, MV/BV ratio and size of the companies.

3.3 The Population

The population of the study consisted of 61 companies quoted in the Nairobi Securities Exchange as at 31st December 2013 (Appendix I). There was no sampling since the population was not too large.

3.4 Data Collection

The study used secondary data obtained from annual reports and financial statements of the firms listed in NSE found at the Capital Markets Authority (CMA) library for the period January 2009 to December 2013. A data collection form was designed to record stock prices, earnings attributable to ordinary shareholders, number of issued common shares and dividends.

3.5 Data Analysis

To determine the relationship between price earnings ratio and stock returns for companies listed in the NSE, regression and correlation analysis was carried out. Regression analysis measures the pattern of the relationship and its closeness in absolute terms. Correlation analysis was also used to measure how well the regression line explained the variation of the dependent variable. Microsoft Excel 2007 program was used to carry out the analysis.

Stock return or rate of return also known as return on investment is a ratio which calculates the gain or loss of money on any investment relative to the initial money invested. In this study, we calculated stock returns by using dividend adjusted approach;

Total stock return= $\frac{(P_1-P_o) + D_1}{P_o}$

P_o= Initial stock price at the first day of the year

P_1= Ending stock price on the last day of the financial year

D_1= Dividends paid in period 1

The independent variables were P/E ratio, market value to book value that is Market value of equity ÷ Book value of equity.

Size = Fixed assets + Current assets

3.5.1 Analytical Model

To examine the relationship between stock return and predictive variables ordinary least squares regression was used. The regression equation was expressed as follows:

$SR = \beta_0 + \beta_1 P/E + \beta_2 PBV + \beta_3 TA + Є$

Where, SR is stock return measured by summing dividend yield and capital gain yield.

β_0: Indicates the value of SR when all the values of explanatory variables are zero (intercept).

P/E: Price to earnings ratio of the firm i in year t measured by MPS/EPS where MPS is the market price per share and EPS is earnings per share.

PBV: Ratio of market value to book value of the firm i in year t measured by MV/BV, where MV is market value of equity and BV is the book value of equity.

TA: Size of firm i in year t measured by measured by natural logarithm of total assets.

β_1, β_2 and β_3 are coefficients of the independent variables.

Є is the error term.

3.5.2 Test of Significance

Significance tests allowed us to determine whether or not a finding was the result of a genuine difference between two or more variables, or whether it was just due to chance. Coefficient of determination, (R^2) and Analysis of variance (ANOVA) test of hypothesis were computed. The tests were conducted on P/E ratios and stock return variables across year 2009 to 2013.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis of study findings on the relationship between the price earnings ratio and stock returns of companies listed at the Nairobi Securities Exchange, based on the specific objectives which include the effect of price earnings ratio, market to book ratio and firm size (total assets). This chapter presents analyses of the variables involved in the study and estimates of the model presented in the previous chapter.

4.2 Data Presentation

4.2.1 Data Description

The study examined price earnings ratio, price to book value and size of the firms represented by total assets for five years, from 2009 and 2013 of firms listed in Nairobi Securities Exchange.

Table 4.1 Descriptive Statistics

Variables	N	Mean	Std Dev.
Price Earnings Ratio	61	2.96	.399
Price to Book Value	61	2.74	.130
Total Assets (Firm Size)	61	2.86	.105

Source: Research Findings

Findings on table 4.1 above shows that the standard deviation of price-earnings ratios is larger (0.399) than those of the other variables indicating that the data of P/E ratios have large range and thus exhibit more volatile behavior than for the other study variables.

4.2.2 Price Earnings Ratio

The study below shows the price earnings ratios of companies listed on Nairobi Securities Exchange.

Table 4.2 Price Earnings Ratios of Companies Listed at the NSE

	Categories	N	Mean	Std Dev
Price Earnings Ratio	0-1.0	61	2.56	.146
	1.1-5.0	61	2.70	.207
	5.1-10.0	61	2.94	.274
	11.1-15.0	61	2.40	.235
	15.1-20.0	61	2.32	.229
	20.1-25.0	61	1.81	.118
	25.1 and above	61	1.60	.112

Source: Research Findings

Findings of the study on table 4.2 shows that majority (Mean = 2.94) of the listed firms have price earnings ratios of between 5.1 -10.0, while least (Mean =1.60) number of

firms have price earnings ratios of between 25.1 and above. Price earning category of 5.1-10.0 has a larger (0.274) standard deviation implying that the category has high variation exhibited in the movement of firms' price earnings ratios

4.2.3 Price to Book Value Ratio

The study below shows the price to book value of companies listed at the NSE for the past five years (2009-2013).

Table 4.3 Price to Book Value of Listed Firms

	Categories	N	Mean	Std Dev
Price to Book Value	0.00-1.00	61	1.72	.310
	1.1-3.00	61	2.24	.167
	3.01- 5.00	61	2.77	.369
	5.01-7.00	61	2.63	.367
	7.01-9.00	61	2.52	.233
	9.01-11.00	61	2.06	.177
	11.01 and above	61	1.32	.109

Source: Research Findings

Findings of the study on table 4.3 shows that majority (Mean = 2.77) of the listed firms have price to book value ratios of between 3.01 -5.00, while least (Mean =1.32) number

of firms have price to book value ratios of between 11.01 and above. Relative to the others price earning categories of 3.01- 5.00 and 5.01-7.00 have large (0.369) and (0.367) standard deviation meaning that these categories have high variation in the movement of firms' price to book ratios

4.2.4 Firm Size

The study below shows the firm size (total assets) of companies listed at the NSE for the past five years (2009-2013).

Table 4.4 Total Assets of Listed Companies

	Categories (000)	N	Mean	Std Dev
Net Assets	100,000-500,000	61	2.47	.226
	501,000-1,000,000	61	2.78	.253
	1,001,000-5,000,000	61	2.86	.231
	5,001-10,000,000	61	2.72	.357
	10,001-20,000,000	61	2.34	.240
	20,001-30,000,000	61	1.91	.271
	30,001,000 and above	61	1.29	.116

Source: Research Findings

Results of the study on table 4.4 above indicate that majority (Mean = 2.86) of the listed firms have total assets of between 1,001,000- 5,000,000, while the least (Mean =1.29) number of firms have total net assets of between 120,001, 000 and above. Relative to the others, the category of total net asset of between 5,001,000 and 10,000,000 has a large (0.357) standard deviation implying that it has high variation in the movement of firms' into and out of the category.

4.2.5 Relationship between Price Earnings Ratio and Stock Returns

The study sought to establish if there is a relationship between price earnings ratio, price to book value and total assets and stock returns.

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	df	sig
1	.597[a]	.356	.324	.573	5	.002

a. Dependent Variable: Stock Returns

Source: Research Findings

Results of the study shown on table 4.5 above indicate the degree to which price earnings ratio, price to book value and total assets is related to stock returns. The findings are expressed in the positive correlation coefficient (R) = 0.597 and coefficient of

determination, (R^2) =0.356 and adjusted R^2 of 0.324. The results of (R^2) implies that the variations in price earnings ratio, price to book value and total assets explain 35.6% percent of the variation in the stock returns. On the other hand, the Adjusted R-square statistic on table 4.5 above shows that 32.4% (Adj R^2=0.324) of the variance in the stock returns can be explained by the variations in price earnings ratio, price to book value and total assets.

The study used analysis of variance to test the significance of the regression model as pertains to differences in means of the dependent and independent variables.

Table 4.6 ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.708	5	2.142	3.834	0.034[a]
	Residual	4.451	38	0.170		
	Total	14.159	43			

a. Dependent Variable: Stock Returns

Source: Research Findings

The ANOVA test shown on table 4.6 above produced an F-value of 3.834 which is significant as the p<0.034. Thus the regression model is statistically significant in

predicting how price earnings ratio, market to book value and total assets affect stock returns of firms listed at the NSE.

The findings on table 4.7 below are based on the following regression model:

$SR = \beta_0 + \beta_1 P/E + \beta_2 PBV + \beta_3 TA + Є$

Where:

SR= Stock Returns

P/E= Price Earnings Ratio

PBV= Price to Book Value

TA= Total Assets

β_{0-3} = Régression Coefficients

Є = Error Term.

Table 4. 7 Coefficients

Variables	Coefficients[a]				
	B	Standard Error	Beta	T	P-value
(Constant)	2.141	.521	.000	4.016	.000
Price Earnings Ratio	1.215	.599	.960	2.028	.001
Market To Book Value	1.019	.507	.753	2.009	.006
Total Assets	1.132	.560	.561	2.021	.004

a. Dependent Variable: Stock Returns

Source: Research Findings

The results of the study shown on table 4.7 above indicate:

$SR=2.141 + 1.215P/E+ 1.019\ PBV + 1.132TA + \varepsilon$

The findings also shows that price earnings ratio, price to book value and total assets have positive coefficients, implying that these independent variables are directly proportional to stock returns of firms listed at the Nairobi Securities Exchange. Therefore taking all variables (price earnings ratio, price to book value and total assets) constant at zero (0) stock returns of firms listed on Nairobi Securities Exchange will be 2.141%. Therefore 1.0% a unit increase in price earnings ratio, price to book value and total assets

will lead to an increase in stock returns of firms listed on Nairobi Securities Exchange by a 1.215, 1.019 and 1.132 respectively.

The results also indicate that the computed t-values of (t=2.028) for price earnings ratio; (t=2.009) for price to book value, (t=2.021) for total assets are smaller than the critical t-value of (t=2.157) based on the degree of freedom (df=5). This shows that there is a significant relationship between the dependent and independent variables. This is further reinforced by the p-value of = ($p<0.001$) for price earnings ratio, ($p<0.006$) for price to book value and ($p<0.004$) for total assets.

4.3 Interpretation of the Findings

Results of the study showed that majority of the listed firms have relatively low price earnings ratios hence affects the stock returns. The findings supports Nicholson (1960) assertion that the price-earnings ratio (PER) effect states that firms with low ratios between stock price and stock earning consistently provide higher returns than those with high price-earnings ratios. In part the findings is in line with the views of Damodaran (2006) who noted that other things held equal, higher growth firms will have higher P/E ratios than lower growth firms.

The study established that there is a significant relationship between price earnings ratio, and stock returns of firms listed at the NSE. This study results contradicts the findings of both Fun and Basana (2012) and Zeytinoglu et al. (2012) who established that that there is no significant relationship between market ratios and stock return of current and future year and only the relationship between the ratio of market value to book value (M/B) and

stock return of current and future year is positive and significant. The results nonetheless concurs with the findings of Mirfakhr et al. (2011) who found out that there is a significant and positive relationship between earnings per share (EPS) and stock price.

Findings of the study shows that majority of the listed firms have relatively moderate price to book value ratios. The study established that there is a significant relationship between price to book value and stock returns of firms listed at the Nairobi Securities Exchange. This concurs with the findings of Zeytinoglu et al. (2012) who established that the relationship between the ratio of market value to book value (M/B) and stock return of current and future year is positive and significant. The study results also agrees with the findings of both Kheradyar and Ibrahim (2011), Kothari and Shanken (1997), which established that there is a significant and positive relationship between the ratio of book value to market value (BTM) with market returns of future year.

The study established that there is a significant relationship between total assets and stock returns of firms listed at the Nairobi Securities Exchange. The study also showed that majority of the listed firms have total assets which are relatively high and this has implication on the stock returns in the market, the findings concurs with those of Hirshleifer et al (2004), who found that a firm asset growth rate is the strongest determinant of future stock returns as potential total asset growth affects comprehensive firm investment and disinvestment which in turn affect stock returns. However the findings are in contrast with those of Drew and Barry (2001), which found that there is a negative relationship between firm size and stock returns.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of this chapter was to present summary, draw conclusions and recommendations on the findings of the main objective of the study which was to analyze the relationship between the price earnings ratio and stock returns of companies listed at the Nairobi Securities Exchange, based on the specific objectives which include the effect of price earnings ratio, market to book ratio and firm size.

5.2 Summary

The study established that majority of the listed firms have relatively low price earnings ratios hence affects the stock market returns. The study revealed that the firms with lower reinvestment needs have higher P/E ratios than firms with higher reinvestment rates. The study also established that companies with high P/E ratios are more likely to be considered risky investments than those with low P/E ratios, since a high P/E ratio signifies high expectations.

The study found out that there is a significant relationship between price earnings ratio, and stock returns of firms listed at the NSE as book-to-market ratio captures information about expected future returns. The study findings revealed that majority of the listed firms have relatively moderate price to book value ratios and that stocks with high ratios of book value have significantly higher returns than stocks with low market to book values.

The study established that there is a significant relationship between total assets and stock returns of firms listed on Nairobi Securities Exchange. The study also revealed that majority of the listed firms have total assets which are relatively high and this has implication on the stock returns in the market. It further revealed that firms experiencing rapid growth by making capital investments and acquisitions subsequently have poor stock returns, whereas firms experiencing contraction through share repurchase, and debt retirement, subsequently report good operating results and high stock returns. The study found out that high growth firms tend to have risk hence the growth rate is seen as a decreasing function of the riskiness of the firm hence the firm's ability to increase its earnings therefore resulting in increased stock returns

5.3 Conclusion

Price earnings ratio affects the stock returns as listed firms with relatively high or low price earning impact on stock return. Firms with lower reinvestment need to have higher P/E ratios than firms with higher reinvestment rates. Companies with high P/E ratios are more likely to be considered risky investments than those with low P/E ratios, since a high P/E ratio signifies high expectations.

There is a significant relationship between price earnings ratio, and stock returns of firms listed on Nairobi Securities Exchange as book-to-market ratio captures information about expected future returns. Majority of the listed firms have relatively moderate price to book value ratios however stocks with high ratios of book value have significantly higher returns than stocks with low market to book values.

There is a significant relationship between total assets and stock returns of firms listed on Nairobi Securities Exchange. Majority of the listed firms have total assets which are relatively moderately higher and this has implication on the stock returns in the market. Firms experiencing rapid growth by making capital investments and acquisitions subsequently have poor stock returns, whereas firms experiencing contraction through share repurchase, and debt retirement, subsequently report good operating results and high stock returns. High growth firms tend to have risk hence the growth rate is seen as a decreasing function of the riskiness of the firm hence the firm's ability to increase its earnings therefore resulting in increased stock returns

5.4 Recommendations for Policy

It is true that companies with above average growth potential will generally command higher P/E ratios than those with lower growth prospects but many other factors such as stability of the industry among others also influence stock returns hence must be taken into consideration in determining future returns of stocks. Due to the importance of price earnings ratios in the investment decisions, care should be exercised in determining the correct and comparable earnings per share of each company.

There is need for investors to carefully use market to book ratio to determine the differentials between net assets of the firm and the valuation that the market assigns to them as it reflects the premium (or discount) that the market gives to the firm on its net assets and, as such, reflects the efficiency with which the market views the firm as being managed which in turn affect stock returns.

There is need for investors to better understand the drivers of the asset growth effect, by decomposing total asset into major components from both the investment and financing of firm operations so that there is better understanding whether the asset growth effect will result in asset expansion or contraction which in turn affect operating assets and reduction in risk and eventually increased stock returns

5.5 Limitations of the Study

The present study has relied largely on secondary data and is therefore restrictive lacking in clarification and enrichment of data that would have provided a more in depth view of the subject matter. Therefore, primary data need to be also included in future to complement secondary data and provide wider perspective to the present study.

When conducting the study, it was noted that not all companies remained listed at the NSE over the period of the study. Some were listed in between the years, others delisted or suspended.

The study did not examine foundational economic reasons that grounds the stock returns as well as a strategies to improve stock performance/returns. Future research need to examine the effect the foundational reasons, other critical determinants of stock returns and strategies to enhance stock performance or returns as this will provide a comprehensive picture of the subject matter.

5.6 Suggestion for Further Research

The study focused on only three effects of the price earnings ratio on market return of companies listed on NSE, price earnings ratio market to book ratio and firm size (total

assets) however there are other effects that need to be examined hence there is need for future research to determine the other effects and examine them so as to provide a comprehensive picture.

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APPENDIX I

COMPANIES LISTED AT THE NSE AS AT 31ST DECEMBER 2013

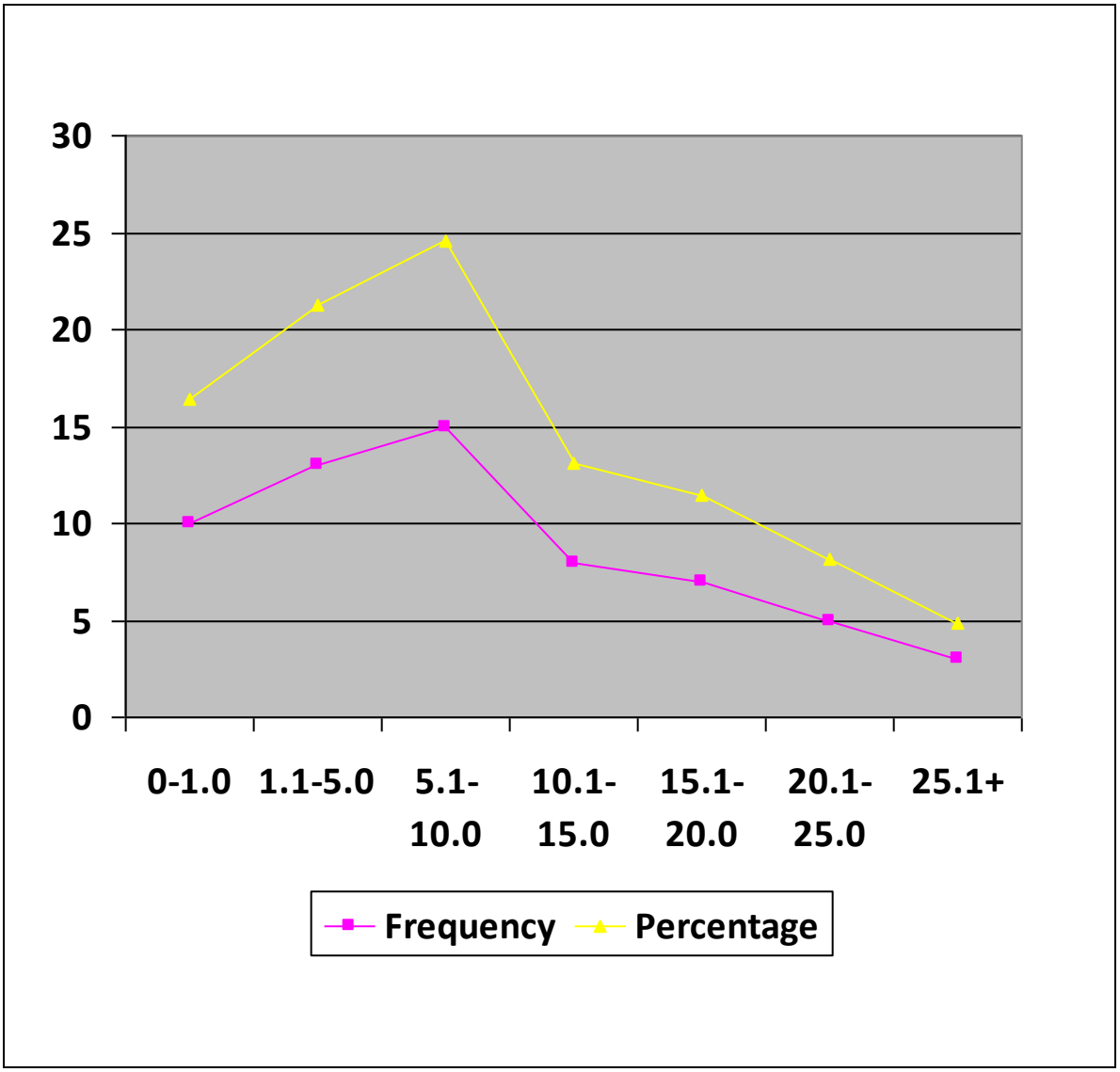
1. Eaagads Ltd - Agricultural
2. Kakuzi Ltd - Agricultural
3. Kapchorua Tea Co. Ltd - Agricultural
4. The Limuru Tea Co. Ltd - Agricultural
5. Rea Vipingo Plantations Ltd - Agricultural
6. Sasini Ltd - Agricultural
7. Williamson Tea Kenya Ltd - Agricultural
8. Car & General (K) Ltd – Automobiles & Accessories
9. CMC Holdings Ltd – Automobiles & Accessories
10. Marshalls (E.A.) Ltd – Automobiles & Accessories
11. Sameer Africa Ltd – Automobiles & Accessories
12. Barclays Bank of Kenya Ltd - Banking
13. CFC Stanbic of Kenya Holdings Ltd - Banking
14. Diamond Trust Bank Kenya Ltd - Banking
15. Equity Bank Ltd - Banking
16. Housing Finance Co.Kenya Ltd - Banking
17. I&M Holdings Ltd - Banking
18. Kenya Commercial Bank Ltd - Banking
19. National Bank of Kenya Ltd - Banking
20. NIC Bank Ltd - Banking
21. Standard Chartered Bank Kenya Ltd - Banking
22. The Co-operative Bank of Kenya Ltd - Banking
23. Express Kenya Ltd – Commercial and Services
24. Hutchings Biemer Ltd – Commercial and Services
25. Kenya Airways Ltd – Commercial and Services
26. Longhorn Kenya Ltd – Commercial and Services

27. Nation Media Group Ltd – Commercial and Services
28. Scangroup Ltd – Commercial and Services
29. Standard Group Ltd – Commercial and Services
30. TPS Eastern Africa Ltd – Commercial and Services
31. Uchumi Supermarket Ltd – Commercial and Services
32. ARM Cement Ltd – Construction & Allied
33. Bamburi Cement Ltd – Construction & Allied
34. Crown Paints Kenya Ltd – Construction & Allied
35. E.A.Cables Ltd – Construction & Allied
36. E.A.Portland Cement Co. Ltd – Construction & Allied
37. KenGen Co. Ltd – Energy & Petroleum
38. KenolKobil Ltd – Energy & Petroleum
39. Kenya Power & Lighting Co Ltd – Energy & Petroleum
40. Total Kenya Ltd – Energy & Petroleum
41. Umeme Ltd – Energy & Petroleum
42. British-American Investments Co.(Kenya) Ltd - Insurance
43. CIC Insurance Group Ltd - Insurance
44. Jubilee Holdings Ltd - Insurance
45. Kenya Re Insurance Corporation Ltd - Insurance
46. Liberty Kenya Holdings Ltd - Insurance
47. Pan Africa Insurance Holdings Ltd - Insurance
48. Centum Investment Co Ltd - Investment
49. Olympia Capital Holdings Ltd- Investment
50. Trans-Century Ltd- Investment
51. A.Baumann & Co Ltd – Manufacturing & Allied
52. B.O.C Kenya Ltd – Manufacturing & Allied
53. British American Tobacco Kenya Ltd – Manufacturing & Allied
54. Carbacid Investments Ltd– Manufacturing & Allied
55. East African Breweries Ltd – Manufacturing & Allied
56. Eveready East Africa Ltd – Manufacturing & Allied

57. Kenya Orchards Ltd – Manufacturing & Allied
58. Mumias Sugar Co. Ltd – Manufacturing & Allied
59. Unga Group Ltd – Manufacturing & Allied
60. Safaricom Ltd – Telecommunication & Technology
61. Home Afrika Ltd- Growth Enterprise Market Segment

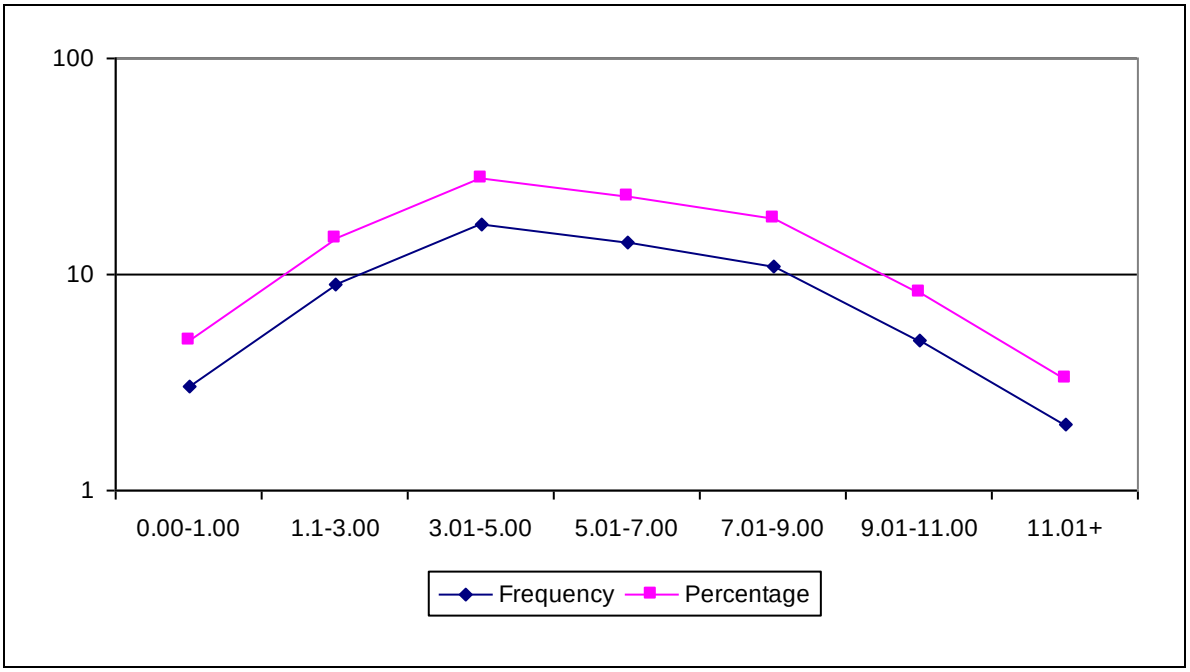
Source: NSE website (www.nse.co.ke).

APPENDIX II: Price Earnings Ratios of Companies Listed at the NSE



Source: Research Findings

APPENDIX III: Market to Book Value Ratios of Companies Listed at the NSE



Source: Research Findings

APPENDIX IV: INTRODUCTION LETTER

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE 15/Sep/2014

TO WHOM IT MAY CONCERN

The bearer of this letter OGELLO CATHERINE AUMA

Registration No. D61/75881/2012

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
15 SEP 2014
P.O. Box 30197 – 00100, NAIROBI

PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS