INVESTIGATING THE EFFECT OF SELECTED MICRO-ECONOMIC FACTORS ON ORDINARY SHARE PRICES FOR FIRMS LISTED IN NSE, KENYA

By

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MASTER OF SCIENCE IN COMMERCE-FINANCE AND INVESTMENTS

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OCTOBER, 2014

DECLARATION

I declare that this research dissertation is my original work and has not been previously published or submitted for award of any degree program in any university. I also declare that this is my original work and contains no material written or published by other people except where due process is made and author duly acknowledged.

Kamau Nicholas M. Reg,No. 11/00052

Signed: …….. Date……

I do hereby confirm that I have examined the master's programme dissertation of

Kamau Nicholas M.

And have certified that all the revisions that the dissertation panel and examiners recommended have been adequately addressed.

Signed: ……Date…….....

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Dissertation supervisor.

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ABSTRACT

The market price of a share is a major factor that influences investors in their investment decisions. One of the major indicators and consideration by potential investors and investors on decision on whether to invest is actually the share price movement(Gill et al 2012).The share price is normally not static but rather changes every day.An important avenue of investments that yield considerable return is through investments in ordinary shares. This also acts as a source capital to firms in need of cash for investments. Returns and prices of such investments depend on various factors. These factors could either be internal or external factors. The knowledge of which explanatory factors and to what extent they affect the share price and their impact are very important for the firms and investors to help make investment decisions. Dividend was found to have significant positive effect on share prices which is in line with the dividend relevance theory developed by Gordon (1963) and Linter (1962). Dividend seeking behavior will lead investors to prefer stocks that pay higher dividends. Investors prefer near dividend to the future expected returns from investments which are considered more risky. There was a significant positive relationship between EPS and MPS at NSE, Kenya. Before investing in a firm every investor needs to know the level of a firm's profit. The net assets value of firms also reported a positive influence on MPS and was significant at 95% confidence interval. The relationship between the price earnings ratio and MPS was also found to be positive. P.E ratio represents market expectations on the firm's future performance. A higher P.E ratio indicates that investors expects the firm to have higher future earnings and thus are willing to pay more to acquire the firm's stake through shares. The relationship between the P.E ratio and share price is expected to positive. A lower P.E ratio thus indicates that an investor would recoup back his investment in a relatively shorter period while the converse is true. Leverage (DE) reported a negative relationship with the MPS. The DPO was found to have a negative influence on share price. This means that although firms need to pay a higher dividend to attract investors, this should not be at the expense of the retention. This is in line with the tax preference theory.

Keywords: Market price per share(MPS),Dividend per share (DPS), Earnings per share (EPS), Price to earnings ratio (P/E), Net assetsvalue pershare (NAVPS), Dividend payout ratio (DPO) and leverage (DE).

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God bless you all.

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ACRONYMS AND ABBREVIATIONS

ATS	Automated trading system.
CDS	Central depository system.
CMA	Capital markets authority.
DPO	Dividend payout ratio.
DPS	Dividend per share.
DY	Dividend yield.
EBIT	Earnings before interest and tax.
EPS	Earnings per share.
IPO	Initial public offer price.
MPBV	Market price to book value ratio.
NAVPS	Net assets value per share.
P/E ratio	Price earnings ratio.
ROE	Return on equity.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Equity is the last claim, the residual or the last interest of investors after all liabilities have been paid. Shareholders equity/capital is the residual interest in the assets of a firm spread amongst each shareholder. Economists believe that forces of supply and demand influence the price of a commodity in a free economy. But then we ask ourselves what factors influence the demand and supply price being one of them, in the securities market, there are various factors that influence equity price, whether in the primary or secondary market. These factors include micro economic factors or a firms specific factors such as earnings per share(EPS), dividend per share(DPS), dividend cover, price earnings ratio (P/E), firm book value as well as dividend yield(Gompers,Ishii& Metrick,2003).

1.2 Background of the study

The main methods of security analysis include technical analysis, the efficient market hypothesis and fundamental analysis. The technical analysis stems from believe that equity share price movements are systematic and exhibit certain consistent patterns. The technical analyst therefore studies past share price movements so as to identify patterns and trends in order to predict the changes and direction of future prices. The price is then compared with predicted price to determine extent of mispricing.

Fundamental analysis focuses on the fundamental factors affecting the company such as the dividend per share(DPS),dividend pay-out ratio, earnings per share(EPS),dividend cover, dividend yield, price earnings ratio (P/E) as well as book value of the firm, market price to book value ratio, net assets value, etc.

Uddin et. al.(2013),Oseni&Jimoh(2008),Al-Tamini(2007),Gompers,Ishii&Metrick(2003),AL-Shubiri(2010) investigated the impact of selected micro economic variables on equity prices using linear regression model. Fundamental analysis involves getting an appreciation of a firm, its financial health as well as its future prospects. It includes the analyzesof a firm's annual financial statements and reports in order to get a clear appreciation of the firms comparative advantages, its market environment and competitors. This analyzes helps assess the value of the firm and understand the pricing of its share in the stock market. Consequently one is now able to have a better and clearer understanding of the behavior and the level of the current market price. This can be performed on all the firms as a whole or on a sector basis.

1.3 Nairobi securities exchange

Nairobi Stock Exchange was constituted in 1954 as an association of stockbrokers registered under the Societies Act. The Nairobi Stock Exchange Limited was renamed to the Nairobi Securities Exchange Limited (NSE). This change of name reflected the strategic plan of the NSE to evolve into a full service securities exchange thereby supporting trade and settlement of debt, equities, derivatives and other related financial instruments.

The East African Securities Exchanges Association started in 2004, after the signing of a Memorandum of Understanding (MoU) between the Uganda Securities Exchange,Dar-es-Salaam Stock Exchange and the Nairobi Stock Exchange. In September 2006 live(automated) trading was implemented at NSE. An MoU between the Uganda Securities and NSE was signed in November 2006on mass cross listing. This thus allowed quoted firms in both security exchanges to dualist. This will enable development and growth of the regional securities markets. NSE upgraded its website in February 2007 to enhance faster and easy access of timely factual and accurate information. The Nairobi Securities Exchange has grouped firms into 10 market

sectorsdepending their area of operations. These categories includes: Banking, Automobiles & Accessories, Agricultural sector, Commercial & Services, Insurance, Energy & Petroleum, Construction & Allied, Investment, Manufacturing & Allied, and Telecommunication & Technology market sector. Currently there are 57 companies listed at the NSE.

The various sectors categorized by NSE experience different business environments and economic conditions. Telecommunication and Technology segment firms like Safaricom have for some time reported supernormal profits. The agricultural sector has recently shown consistent growth especially after introduction of new methods of farming such as irrigation schemes, green houses and mechanized farming. Looking at Automobile and accessories, manufacturing, construction and allied industries; new manufacturing plants are being set up in Kenya, mining activities have increased, and infrastructural developments have also increased. It is therefore necessary to understand the various determinants of their equity stock prices.

1.4 Research problem

The management of every company normally wants to be associated with a company whose share price is competitive in the market. The current and potential investors likewise prefers to invest in a company whose share price is competitive in order to get good value for their money/investments .The bulls and the bears in the securities market will also regard share price movements with a keen interest for purposes of taking advantage on their profitable opportunities either by going long or taking a short position from time to time depending on the prevailing circumstances.

According to fundamental analysis, a firm's share price is influenced by various fundamental factors. This fundamental factors includes the earnings per share(EPS) of the firm, the dividend pay-out ratio, dividend per share(DPS),dividend cover, dividend yield, price

earnings ratio (P/E) as well as book value of the firm, etc. To an investor Fundamental analysis helps to identify firms which are fundamentally strong and whose shares should be included in the investor's portfolio.

Although several studies have been done on micro economic variables that influence stock prices for the firms listed in the other Securities Exchanges of the world, for example Irfat and Nishat(2002) , Sen & Ray(2003), Gupta & Malakar(2002), Pradhan(2003),Shama & Singh(2006),Al-Tamini(2007), Khan(2009),Al-Tamini(2008) important question remain about what determines the stock prices for firms listed in NSE Kenya. Other studies have focused on variables that influence stock prices of all listed firms as a whole in other security exchanges of the world eg,(Khan(2009),Al-Tamini(2008), or variables that influence stock prices of only a specific sector of the economy, Sunder and Sanderson(2009),Al-Mutairi& Al-Omar(2008) Undin(2009),Malakar and Gupta(2002)AL-Shubiri(2010),Kibet et al(2013).Other studies only tackled a few of the micro economic variables, for example, Sen & Ray(2003),Malakar& Gupta(2002) ,Baphat & Raithatha(2009),Kibet et al(2013) while others have focused on macro-economic variables in the Kenyan capital market as well as other markets of the world,Nyangoro(2013),Adunda J et.al(2012),Aroni(2011),Sunde & Sanderson(2009),Somoye et al(2009).

A level of the variables that is perfectly optimal for a better performance of stock prices and one that best maximizes investors wealth is almost impossible to achieve. There is therefore need to assess the effect of the level of selected micro economic variables on ordinary share prices for companies listed in NSE within the same period. An appreciation of valuation mechanisms is important for the efficient financial management of a firm, understanding of the micro economic variables that influence stock prices, their behavior, effect and influence is

useful in formulation of management policies relating to right issues, bonus declaration and dividend payments. Such knowledge also helps investors to make better, intelligent and informed investment judgments as well as make rational investment decisions(Sachdeva,1994).Literature suggests that the effects of the micro economic variables differs from one economic environment to the other depending on the environment. This research therefore sought todetermine the relationship and the effects of the level of EPS, DPS, NAVPS,DPO,Leverage(DE) and P/E on market price per share(MPS) for firms listed in NSE,Kenya.

1.5 Research objectives

The research objectives are:-

1.5.1 General objective

The general objective of the study is to determine the relationship and the effects of the level of EPS, DPS, NAVPS and DPO on market price per share for firms listed at NSE,Kenya.

1.5.2 specific objectives

The specific objectives are to:-

- Determine the effect of EPS on MPSatNSE,Kenya.
- Determine the effect of DPS on MPS at NSE,Kenya.
- Determine the effect of NAVPS on MPS at NSE,Kenya.
- Determine the effect of DPO on MPS at NSE,Kenya
- Determine the effect of Leverage (DE) on MPS at NSE,Kenya.
- Determine the effect of P/E ratio on MPS at NSE,Kenya.

1.6 Research Questions

The research questions are:-

- What is the effect of EPS on MPS at NSE,Kenya?.
- What is the effect of DPS on MPS at NSE,Kenya?
- What is the effect of NAVPS on MPS at NSE,Kenya?
- What is the effect of DPO on MPS at NSE,Kenya?
- What is the effect of Leverage (DE) on MPS at NSE,Kenya?
- What is the effect of P/E ratio on MPS at NSE,Kenya?

1.7 Significance of the study

1.7.1 Investors

The study will help investor, both individual and corporate; know the factors to consider while making a choice among different securities that form investors' portfolio. The investor will also be able to make intelligent, informed and rational decision on investments. They will be able to analyze and forecast stock price performance thus provide a basis for their investment decisions. They will be able to make an analysis of which specific factors affects the stock prices and the extent to which they do, thereby making informed investment decision.

1.7.2 Management of a firm

The knowledge and understanding of the determinants of share prices is useful in formulation of corporate policies relating to bonus issues, right issues and dividend payments(sachdeva,1994).The knowledge also helps the firms' management in their investment appraisal decisions where they choose among different portfolio (chadra,1981).

1.7.3 Financial Agents

The bulls and the bears in the securities market will also regard share price movements with a keen interest for purposes of taking advantage on their profitable opportunities either by going long or taking a short position each time depending on the prevailing financial

circumstances. The bulls buy securities at a lower price when they believe their prices are undervalued and the prices will go up and they sell at a profit. The bears sell securities at a higher price when they believe that their prices are overvalued and the market will correct itself and they buy at reduced price thus making profit.

1.7.4 The government

The knowledge will also be useful to the government in their planning for economic growth and investment appraisals(Chadra,1981).Investments is very important for a countries economic growth. This research seeks to identify determinants of stock prices as well as quantify their relative importance. Demetz(1973) under the superior firm hypothesis argues that firms differ with respect to their productivity level. Understanding of share prices and their respective determinants will help create a broader share market base which will in turn create a better investment culture for a country like Kenya.

1.8 Determinants of equity share prices

An investment in equity shares is a major investment that yields more dividends to investors. It also serves as a source of finance for firm's capital investments. These returns are expected to vary based on share price movements. This movement depends on a variety of factors. These factors may be internal to the firm such as dividend, book value of assets, earnings per share or even external factors such as interest rates, foreign exchange, government policies etc. The factors can also be classified as micro economic such as earnings per share, firm's book value, dividend, price earnings ratio or macro-economic factors such as government regulations, economic performance, interest and inflation.

The knowledge of the relationship and effect of such factors is therefore important to both the investors and firms. It is important for firm managers to take due attention to factors

influencing share prices since the share prices communicate information to the world outside about the expected performance of the firm now and in the future thus help enhance the firm value.

1.8.1 Firms earnings

This is a major element that all investors look for. Before investing in a firm every investor needs to know the level of a firm's profit. Future earnings are major factor as they signify the prospects a firm's future performance as well as its potential growth opportunities and thus is a determinant of stock prices. Earnings per share (EPS) is one of the measures of earnings. This represents the earnings attributable to ordinary shareholders which is the amount of earnings for each outstanding equity share. The relationship between earnings and share price is expected to be positive since increase in earnings is seen to represent better future prospects.

1.8.2 Price earnings ratio

This is a variable that have been shown to influence the share price. This is the price investors are ready and willing to pay expressed as ratio to the distributable net profit per share. It is calculated as market capitalization divided by total earnings or market price per share divided by earnings per share. Thus represents market expectations on the firm's future performance. A higher P.E ratio indicates that investors expects the firm to have higher future earnings and thus are willing to pay more to acquire the firm's stake through shares. The relationship between the P.E ratio and share price is expected to positive. The PE ratio is the earnings multiple.

P.E ratio is one of the major yardsticks for assessing the relative worth of a particular share. It represents the number of years that an investor would take to recoup or pay back his investment from the current earnings of the firm. A lower P.E ratio thus indicates that an investor

would recoup back his investment in a relatively shorter period while the converse is true. A low P.E ratio thus helps to raise the market price of the shares and vice versa. Thus P.E ratio will influence current investor demands for the shares. Normally, firms with moderate or lower growth of earnings are traded at lower P/E values than firms with higher growth rate. The current market price might not seem as expensive for a rapidly growing firm which is expected to maintain its growth rate the foreseeable future due to the good news of the growth prospects, such share prices are competitive and fetch higher prices.

1.8.3 Dividend

Dividend is the portion of a firms profit distributed to the shareholders in proportion to their respective shareholding. Dividend seeking behavior will lead investors to prefer stocks that pay higher dividends. This will in turn result to higher demands for such stocks, thereby enhancing their market price. Thus the relationship between dividend and the share price is expected to be positive. Dividend per share is the total ordinary dividend divided by the issued ordinary shares. Dividend yield is the market price per share dividend by dividend per share.

1.8.4 Profitability

This is one of the criteria used to assess a firm's performance. Earnings available to equity shareholders are the profit that is left after paying preference dividend and tax. This is the earnings used by the firms to distribute dividend to the equity shareholders. Thus the higher the earnings the more the funds available for distribution to shareholders as well as wealth creation. The earnings is expected to be positively related with share price. Return on asset(ROE),ratio of profits to total equity is one of the measures of profitability.

1.8.5 Leverage

This is the ratio of debt to equity, is the relative proportion of long term debt and equity used by a firm to finance its operations. It indicates the extent to which a firm is financed with debt capital. A higher gearing ratio is characterized by a higher debt ratio. Debt capital involves periodic and regular interest payments by the borrowing firms, thus resulting in more interest payments. This then reduces the earnings distributable to ordinary shareholders. Thus investors would prefer firms that have lower debt to equity ratio in the firm's capital structure. Thus the researcher expects a leverage to have a negative relationship with share price.

Low leverage ratio shows greater long term financial safety but a very low ratio may mean that the firm's management is too conservative, which may mean that a business is not exploiting its full profit potential. The larger the portion of funds provided by the owners/equity, the lower the risk that is assumed by the creditors. High Ratio on the other hand shows a higher risk element assumed by creditors; hence creditors will have greater interest in the management of a firm. It also represents a limited ability to obtain money from external sources due to the already high gearing. A specific level of leverage can either work for the business in its good times or work against it in times of sales decline, it all depends on where the business is in its life cycle.

1.8.6 Return on Equity (ROE)

Return on equity (ROE) measures how efficient the assets of the firm are being employed to generate profit or wealth for the owners. ROE generally varies depending on the nature of the firm and industry and the amount of a firms required fixed assets. Low ratio will mean poor performance by the management. On the other hand a high ratio means effective use of assets by management.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will present a review of relevant literature on determinants of stock prices across industries. It will review theories of stock prices and information on determinants of stock prices from researchers who have conducted studies on the field of study.

2.2 Theoretical Review

This section reviews the theoretical models relevant to this study. The primary focus of the study is stock prices. The researcher gave a brief review of some of these theories.

2.2.1 Fundamental analysis-An approach to security analysis

There are three main approaches to security analysis, namely, fundamental analysis, technical analysis and the efficient market hypothesis.

The technical analysis stems from believe that share price movements are systematic and exhibit certain stable patterns. The technical analyst therefore studies past movements in the prices of shares to identify patterns and trends in order to predict the changes and direction of future prices. The stock price is compared with its future projected price in order to determine the nature of mispricing.

Fundamental analysis concentrates on the fundamental factors affecting the company such as the dividend per share(DPS),dividend pay-out ratio, earnings per share(EPS),dividend cover, dividend yield, price earnings ratio (P/E) as well as book value of the firm, market price to book value ratio, net assets value, etc. The fundamental analyst studies also the factors affecting the industry to which the firm belongs as well as the economy fundamentals.

Mispricing of securities provides an opportunity to the investor to buy the share or dispose of the share profitably. An investor would sell those securities which are overpriced and buy those securities which are underpriced. It is believed that mispricing will be corrected by the market in future. Prices of over-valued shares will decrease and those of under-valued shares will increase. Fundamental analysis helps identify fundamentally strong firms whose shares should be included in the investor's portfolio.

Fundamental analysis involves first understanding of a firm, its business health and its future prospects. This involves studying and analyzing a firm's annual financial statements and reports in order to get a clear appreciation of the firm's comparative advantages, its market environment and competitors. The financial analysis helps get an appreciation of the value of different firms and understand the price movements in the stock market. These means after this one is now be able to have a better and clearer understanding of where the price of the stock is overvalued or undervalued at the prevailing price.

For a fundamental analyst, the stock price normally moves towards its true value/intrinsic value, where this is the firm's value as given and calculated by its fundamentals. Where the market price is not a representation of the true value of the firm, then there is an investment opportunity which can be exploited.

The stock is said to be underpriced where the current stock price is lower than its intrinsic price, and the investor should buy the stock because he expects the market price to increase and move towards the true value. On the other hand, when current stock price is above the intrinsic price, the stock is said to be overpriced and thus an informed investor will sell the stock since he knows that the stock price will decrease as it moves closer to its intrinsic value. To determine the intrinsic price of a stock, variety of firm's fundamental factors need to be considered. These

factors includes a firms earnings, profit margins and profitability, return on equity,leverage,price to earnings ratio and market price to book value.

2.2.2 The efficient market hypothesis (EMH)

The theory states that financial securities markets are efficient (information efficient). Thus given that market information is available one therefore is not able to achieve excess returns in the market after taking care of the respective risk adjustments. The three forms of the efficient market hypothesis are the strong, semi strong and the weak forms. The weak version indicates that prices of assets like stocks and bonds reflect all past available public information. The semi strong form asserts that prices will reflect all past publicly available information but such prices again changes in response to new public information. The strong form on the other hand claims that in addition to past and new information, prices also reflect even insider or hidden information.

2.2.3 The Dividend relevance Theory/Bird in the hand theory

This was developed by Linter (1962) and Gordon (1963) which states that dividend are relevant in determination of a firm's value and hence its share prices. In this investors are of the opinion that the potential future capital gains that may result after a high retention are more risky than dividends are considered as less risky. Hence they prefer dividends and thus prefer high dividend payout firms. This leads to high demand for such shares resulting to a higher price.

2.2.4 Tax preference theory

This indicates that retained profits/earnings normally leads to capital gains(long-term) which are normally taxed at reduced rates compared to that of dividends. This then would cause investors to prefer firm with a low dividend payout ratio, thus low payout will lead to higher demand for such a firms shares and hence a higher price.

2.2.5 The Dividend Irrelevance Theory

France Modigliani and Merton Miller (1961) found that a firm's dividend policy does not affect its value. They argue that firm's value depends on the firms earnings as a result of its investment. The higher the firms earnings the higher the value of the firm and its share price. Thus given the investment policy then dividend is of no relevance. This is based on assumptions that investors behave rationally, there is a near perfect capital market, the firm has a fixed investment policy and investors are large enough to influence share prices.

2.2.6 Static Trade-off Theory

When Merton Miller and Franc Modigliani (1963) added corporation tax to the original dividend irrelevance theory, which created a benefit for debt. The theory states that a debt ratio which can be said to be optimal for a firm can be obtained through a trade-off between the benefits of borrowing and cost, while holding the firm's investment plans and its assets constant. Firms balance their equity positions and debt by making trade-off between the cost of bankruptcy or financial distress and the value of interest tax shields. Provided there are no costs of adjustments involved in changes to capital structure, the capital structure should now the one that maximizes the firm value (Myers, 1984).

Interest expense being tax deductible, consequently increases the after tax cash flows and decreases the tax liability. This increases liquidity and profitability which is considered as among the determinants of share prices.

2.2.7 Agency Theory

Meckling and Jensen (1976) found the probable conflict between managers and shareholders is due to manager's share of lower stake in the firm. Managers incur agency costs of different types and make investment decisions based on imperfect markets thus influencing

firm's value (Jensen and Meckling, 1976). Managers may try to use free cash flow sub-optimally rather than use it to increase the firm's value. Jensen (1986) found that the problem can be tamed by increasing ownership stake for managers in the business or by changing the capital structure to include more debt, therefore this will in turn lead to the reduction of the amount of available free cash flow (Jensen (1986). Hart and Grossman (1982) argue that short-term debt can act as a method where managers' incentives are aligned with that of shareholders since bankruptcy is costly scenario for the management. This implies that liquidity is an important determinant of a firms value and share price.Net asset value should also be considered as a determinant of stock prices.

2.2.8 The Dow Theory

Charles Dow had several major beliefs in his theory. He believed that market comprise of three trends, that is would take sharply in a particular direction, then draw back briefly in another before resuming the previous direction. This act as a basis for most technical analysis. It goes on to say that market will comprise of 3 phases, build up through accumulation by intelligent/informed investors, then the followers of the trend are incorporated, and finally the same informed investors begin selling their shares. Stock market is relatively efficient and that share prices react rapidly to trending information. Also believe that market trends do exist, until real signals indicate differently.

2.2.9 Elliot Wave Theory

The theory was coined by Ralph Elliot in the 1920, Elliot Wave Theory suggests that the market moves in repeated forms called waves. The theory describes that stock prices exhibit five waves to the direction of the main trend which are the followed by three correctional waves

2.3 The determinants of equity stock prices

Various empirical studies have been conducted in different countries to help understand the determinants of stock price movements. Various factors have been identified as the determinants of equity stock prices. Collins (1957) identified book value, operating earnings; net profit as well as dividend payout as the main factors that influenced dividend in a study conducted for US banks. Another study for banks listed in Athens stock exchange (Karathanasis and Phillippas,1988) found retained earnings, firm size and dividends as the main determinants of share prices. Midan(1991) found financial leverage and earnings as the main determinants of share price in Kuwait stock market.Irfat and Nishat(2002) found the major determinants of share prices in Karachi stock exchange to be dividend payout ratio, dividend yield, firm size and leverage.

In a study about impact of a firms earnings and dividends on equity stock prices,Hartono(2004) argued that if negative dividend information is followed by positive earnings then there will be a positive impact on equity prices. Likewise, if negative earning information occurs after positive dividend information then a significant negative impact is expected on the equity prices.

Pradhan (2003) found dividend as significantly influencing share price in Nepalese firms while Al-Tamini(2007) found such influencer to be a firms earnings in the United Arabs Emirates.Book value and earnings were found to be the main determinants for share prices in Kuwait commercial banks,Al-Omar & Al-Mutairi(2008).Khan(2009) identified dividend as the major factor influencing share prices in Dhaka stock exchange. Somoye et.al (2009) found gross domestic product, foreign exchange and lending interest rates as the major macro-economic determinants of share prices in Nigerian stock exchange. Another study by Sunde &

Sanderson(2009) found the major factors influencing stock prices in Zimbabwe as market liquidity, lawsuits ,management, mergers and take-overs, stability, government policy. Uddin(2009) while analyzing specific micro economic factors on shares prices for leasing companies, banks and insurances listed in Dhaka stock exchange found earnings, dividend and net assets as to have significant relation with equity share price.

In India, a 1982 research on private sector firms by Zahir & kama found that the share prices were significantly influenced by the dividend yield and dividend.Chawla & srivinsan(1987)found retained earnings and dividend to be the major determinants of shares prices.Malakrar & Gupta(2002),Sen & Ray(2003) found dividend and dividend payout to be the main determinants of share prices. Mehta & Turan (2005) found the price earnings ratio, market capitalization and market price to book value ratio to be significant determinants of share prices at the Bombay stock exchange. Also at Bombay stock exchange Shama & Singh on their study of fundamental factors affecting equity prices found price earnings ratio, earnings as well as book value to be key determinants of stock prices in engineering firms, return on capital employed and price earnings ratio as the main equity price determinants for chemical industry, size and book value for textile industry, price earnings ratio and earnings' for electrical firms, dividend pay-out, book value and price earnings ratio for miscellaneous industry. Singhania(2006) on study for manufacturing firms found dividend, book value, dividend cover, dividend yield, price earnings ratio and earnings to be major determinants of stock prices. Singhania(2008) found dividend, book value, dividend yield, dividend cover, price earnings ratio as well as earnings to be the major determinants of the stock prices. Malakar and Gupta,(2002) in their study found the variables retained earnings, earnings per share, sales proceeds and dividend per share to be the major determinants of stock prices for eight major Indian cement companies

over the period 1968 to 1988.Tuli,nishi and mital,(2001)after conducting a cross sectional analysis of earnings of 105 companies in India found earnings per share to be the major determinants of the firm's stock prices over the period 1989 to 1993.

Shama and Singh found the main determinants of stock price changes in India to be dividend cover, book value per share, dividend payout, earnings per share, dividend per share, price earnings ratio and firm size by using data from 160 Indian, firms for the period 2001 to 2005.A study by Nisha and Nishat,2012 found earnings per share as well as firm size to be the major determinants of share prices where they used 221 Pakistan firms for period 1995 to 2006. Amindu and Abor (2006)while using OLS regression model in companies in Ghana found a key relationship between earnings and dividend which then influenced the share prices of firms. Another study by Al-shubiri(2010) used multiple and simple regression analysis on data from Amman stock exchange in Jordan for 14 commercial banks. The study found market price to have a high positive relationship which is significant with the variables net asset value per share, dividend per share and earnings per share.

The above empirical evidence differs from one study to the other, with respective to the choice of firms used, analysis method used as well as the sample period under consideration. Studies that find Earnings to be a major determinant of share price includes Bapat&Raithatha(2009),Sharma and Singh(2006),Sen and Ray(2003),Zahir(1992) and (1980).Dividend was found to influence shares prices from studies by Azhagaiah and Priya (2008),Shama &Singh(2006),Ray and Sen(2003),Malakar and Gupta(2002),Zahir(1992),Chawla and Srinvasan(1987),Khanna and Zahir(1982),Krishna(1984),other determinants of the stock price include book value per share as reported by Zahir(1992),Krishna(1984). Studies where Price earnings ratio was found to determine share price includes, Shama& Singh(2006),Mehta

&Turan (2005).Return on capital employed was found to be a main determinant of share price from studies by Shama& Singh(2006).A Study that found firm size as a determinant was by Bapat&Raithatha(2009),Shama& Singh(2006).

2.3.1 Review from local Kenyan literature.

In Kenya,Kipngetich et al,2011 investigated the determinants of initial public offer(IPO) pricing for companies listed in NSE for IPOs between 1994 to 2008.The factors considered were IPO ownership retention after the offer, firm size, investors sentiments/expectations and firm age. They analyzed data using descriptive and multiple regression. Underpricing of IPO was reported at 49.44% on average. The variables under study were found to have no significance in explaining the IPO price at 5% level of significance and the coefficient of determination was at 24.56%.The regression model obtained using STATA data analysis software was:-

Equation I:P0=-7.36-0.0015INVS+15.91PIPOW+0.715LnFSIZE-2.0BPREST+3.712994 where INVS was investor assertion/expectations,PIPOW is post ownership retention,BPREST is board prestige while LnAGE is natural logarithm of age of the company.

Aroni,2011 did a study determinants of stock prices for firms listed in NSE,Kenya for the period January 2008 to December 2010.He used money supply, interest rates, exchange rate and inflation factors. He used multiple regression and Pearson correlation to determine the impact of the selected factors on stock prices. The results showed interest rate, exchange rate and inflation rates are significant in explaining the stock prices except money supply which none the less had a positive correlation.

AdudaJ,et al(2012) investigated the determinants of stock market developments using a case for NSE,Kenya for the period 2005 to 2009 using multiple regression analysis. The study tested selected macro-economic variables and reported that institutional quality, per capita

income, market liquidity, domestic savings, accountability, corruption index and banks development are major determinants of capital market development.

Githendia,(2012) conducted a study on the effect of initial public offer (IPO) price on the stock performance at NSE,Kenya. She found that the IPO is not a major determinant of the stock price performance but rather such prices are more determined by the motive of the firm going public and that most issue prices are set to counter the strength of a business. Also most issue prices were found to be fair as at the prevailing market conditions.

Kemboi et al,(2012) conducted a study on macro-economic developments of emerging stock markets, evidence from Kenya, for period 2000 to 2009.They conducted co-integration relationship between stock development and macroeconomic determinants using johansen co-integration technique. The study revealed that macro-economic factors such as banking sector development, market liquidity and level of income are important determinants of development of NSE,Kenya

Kibet et al,(2013) undertook a study on the effects of that capital structure has on share prices for companies listed under the energy sector in NSE,Kenya for period 2006 to 2011 using multiple regression method. The results obtained are that variables of equity, gearing ratio and debt were found as determinants of share prices which were also significant for the energy sector. Gearing and debt were found to have a positive influence on share price while equity had a negative effect.

Nyangoro,(2013) conducted a study on stock market performance and foreign portfolio flows in Kenya for period April 1996 to December 2011. He found that foreign investors' participation has an effect on the capital market and that stock markets are affected by unexpected foreign exchange inflows. Also found that micro economic factors such as

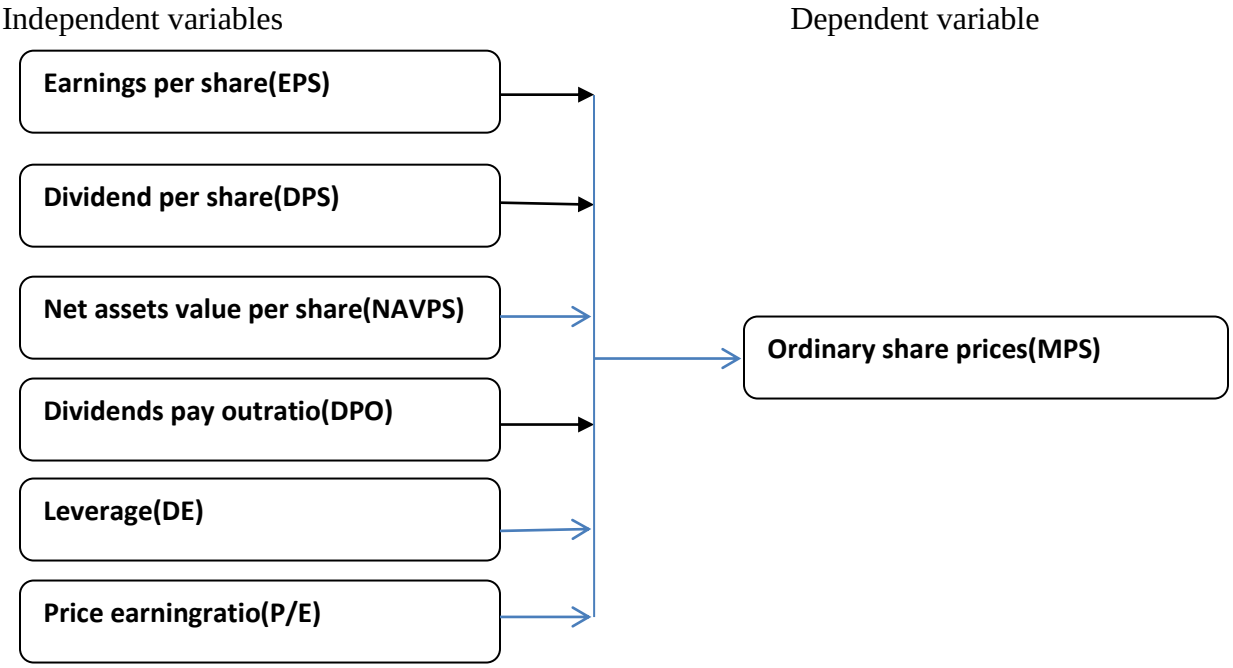
treasurybill rate and exchange rates are major determinants of stock returns. The research also indicated that portfolio inflows also positively affect the stock market performance by stimulating the market.

2.4 Conceptual frame work

The performance of stock prices(dependent variable) is influenced by the explanatory variables, Earnings per share (EPS), dividend per share(DPS), Net assets value per share(NAVPS) ,Dividend payout ratio(DPO),Leverage(DE) and Price to earnings ratio(P/E).

FIGURE 1

Conceptual frame work



Source-Researcher 2014

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section comprise of the research design, the target population, method of data collection and the technique that was employed to analyze data.

3.2 Research Design

A Descriptive study was used to establish the factors that influence changes in equity share prices for in each year at the NSE,Kenya. A descriptive research is intended to describe the characteristics of a phenomenon e.g. discovering variation within variables (Mugenda & Mugenda, 1999). In this study, a descriptive research is preferred because it describes how shares prices are related to any one of the independent variables, that is; earning per share(EPS),dividend per share(DPS),net assets value per share(NAVPS) ,dividend payout ratio(DPO),Price to earnings ratio(P.E) and Leverage(DE). It also involved establishing the relationship and effect of the explanatory variables to the dependent variable MPS.

3.3Target Population

This study was carried out in the NSE, which had a total of 57 registered firms as at 31st December, 2013. These firms are divided into 10 sectors. A list of all the quoted firms under each category is in Appendix I.

3.4 Sample and Sampling frame.

While selecting the sample from the 57 firms, criteria was used to ensure, the necessary financial data and variables required for the calculations of the measures of the dependent and the independent/explanatory variables are available.

3.5 Data Collection

Secondary data was obtained from the annual published financial statements and reports maintained at the NSE and The Capital Markets Authority (CMA). Data for the years 2011 and 2012 was collected for this study. Data collected was used to measure the following variables of study; market price per share(MPS),Earnings per share (EPS), dividend per share(DPS), Net assets value per share(NAVPS), Price to earnings ratio(P/E), Dividend payout ratio(DPO) and Leverage(DE). MPS was taken from the closing rate of stock at end of the financial year for each company. The data was collected with the help of a Data Collection Sheet, which is in Appendix II.

3.6 Data Analysis

Data was analyzed through descriptive statistics and multiple regression analysis. The Descriptive statistics included measures of central tendency such as the standard deviation and the mean. Kurtosis and Skewness were also used to test normality on the distribution of variables.

3.6.1 Regression model

In order to identify the determinants of share prices and their effect, the market price per share(MPS) was modeled as a function of Earnings per share (EPS), dividend per share(DPS), Net assets value per share(NAVPS),Dividend payout ratio(DPO),Price earnings ratio(P.E),Leverage(D/E). Multiple Regression models were used to explain one variable(the MPS-dependent) from the explanatory variables/independent variables (Uddin et.al., (2013)Oseni& Jimoh,2008 and Al-Tamini,2007,Gmpers,Ishii and Metrick(2003),AL-Mutairi(2010).The technique is an appropriate tool used for evaluating an individual and combined effect of a set of independent variables on the dependent variable. A regression was

run separately for each year to determine the effect of the explanatory/independent variables on share price. The data was analyzed using the STATA software. The estimated model was:

Equation II: $MPS = \beta_0 + \beta_1 EPS + \beta_2 DPS + \beta_3 NAVPS + \beta_4 P/E + \beta_5 DPO + \beta_6 DE + \varepsilon$

Where;

MPS -market price per share

EPS- Earnings per share given by earnings attributable to ordinary shareholders divided by total issued shares.

DPS- Dividend per share given by total paid dividend divided by total issued ordinary shares.

NAVPS-Net assets value per share given by the net assets divided by total issued ordinary shares.

P/E -Price to earnings ratio given by the ratio of market price per share to earnings per share or market capitalization to earnings attributable to ordinary shareholders.

DPO -Dividend payout ratio given by dividend per share divided by the firm's earnings per share.

DE -Leverage given by ratio of long term debt to total equity (Long term debt/total equity).

MPS -is the dependent variable while EPS, DPS, NAVPS, P/E, DPO and leverage (DE) are the dependent/explanatory variables

β_0 -Constant term, the value of MPS when all the explanatory variables are zero.

$\beta_1 - \beta_6$ Regression coefficients – defines the amount by which share price (dependent variable) is changed for every unit change in the predictor variable, the slope.

ε -The error term/the noise, which defines the variation in the response variable, MPS, which is not explained by the included predictor variables.

3.6.2 Correlation

A measure of correlation using partial correlation coefficient was also used to test the degree of association between MPS, dependent and each of the explanatory variables. Correlation is a measure of extent and strength of linear association between any two variables. It is always between -1.0 and +1.0.positive correlation means positive relationship while negative one means a negative relationship between the variables under consideration. The closer the relationship is to -1.0 or to +1.0, the stronger the degree of association.

Correlation Coefficient (r) was determined and used to measure the strength and direction of relationship between the dependent variable (MPS) and each independent variable.

3.6.3 Multiple Coefficient of determination (R^2)

The Coefficient of determination (R^2) was used to measure the relative proportion of change in the dependent variable that can be explained by explanatory variables. Multicollinearity and heteroscedasticity(where the variance of the error term is not constant) was also tested for any anomaly to be resolved through the use of natural logarithm and weighted averages or ratios where necessary. If the test statistic value exceeds the critical value at the 95% confidence interval or 5% level of significance then there is presence ofheteroscedasticity while the converse is true. Multicollinearity was tested using the variance inflation factor (VIF) where VIF greater than 4 suggests multicollinearity.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This covers the data analysis results and research findings. The findings presented were based on the study whose research objective was to investigate the effects of the selected micro economic determinants of equity share prices/ordinary share prices for public firms listed in NSE,Kenya. Data on the firms were collected from published financial statements available at NSE and CMA. This was then used to compute the various variables/ratios that that were used in the study. The chapter presents separate regression analysis for each year and another regression for the average variables over the period of study. This is followed by a summary and interpretation of the findings.

4.2 Regression analysis

A separate regression analysis for each year and average over the period of study was performed to determine the relationship between MPS and each independent variable

4.2.1 Results for year 2011

TABLE 1

Descriptive Statistics 2011

Variable	Obs	Mean	Std. Dev.	Min	Max
mps	37	68.45	78.07251	3.2	335
eps	37	7.241649	13.97639	-46.74	47.8
dps	37	3.696759	5.757095	0.0001	30.5
navps	37	75.26162	109.7421	1.99	610.46
pe	37	7.187027	9.264811	-36.14	21
dpo	37	29.25243	56.6356	-256.1	104.44
de	37	0.4886757	0.5234338	0.02	1.872

Table 1 shows that the average market price for shares at NSE is sh.68.45 with a standard deviation of 78.07, average earnings per share is sh.7.2 and standard deviation of 13.98.The average values for the dividend per share, net assets value per share, price earnings ratio, dividend payout ratio and leverage is sh.3.7,sh 75.26,sh7.18,29.25% and 0.49 respectively with standard deviations of 5.77,109.74,9.26,56.64 and 0.52 respectively.

TABLE 2

Correlation analysis 2011

	mps	eps	dps	navps	pe	dpo	de
mps	1						
eps	0.359	1					
dps	0.744	0.2878	1				
navps	0.46	-0.192	0.3612	1			
pe	0.192	0.1302	0.0426	-0.234	1		
dpo	0.204	0.2049	0.2978	-0.196	0.825	1	
de	-0.14	-0.063	-0.254	-0.025	0.149	-0.112	1

The above result shows that the linear relationship between MPS and the selected variables is as follows:-

Moderate positive at 0.359 between MPS and EPS, strong positive at 0.744 between MPS and DPS, Moderate positive at 0.46 between MPS and NAVPS, weak positive at 0.192 between MPS and PE, weak positive at 0.204 between MPS and DPO, weak negative at -0.14 between MPS and leverage(DE). This shows existence of a positive relationship between MPS and majority of the explanatory variables EPS, DPS, NAVPS, PE while DE is negatively related to MPS.

TABLE 3

Regression Analysis 2011

Source	SS	df	MS		Number of obs	37
					F(6, 30)	16.12
Model	167491.434	6	27915.2389		Prob> F	0
Residual	51939.9913	30	1731.33304		R-squared	0.7633
					Adj R-squared	0.716
Total	219431.425	36	6095.31736		Root MSE	41.609
mps	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
eps	1.37061	.549751	2.49	0.018	0.2478683	2.493351
dps	9.071538	1.619851	5.6	0	5.763361	12.37971
navps	0.2227572	.0760012	2.93	0.006	0.067542	0.3779724
pe	5.777947	1.543933	3.74	0.001	2.624815	8.93108
dpo	-0.7748661	.2657939	-2.92	0.007	-1.31769	-0.2320426
de	-17.23795	14.83462	-1.16	0.254	-47.53428	13.05837
_cons	-2.211611	13.12577	-0.17	0.867	-29.018	24.59478

Equation III: MPS=-2.212+1.371EPS+9.072DPS+0.223NAVPS+5.778PE-0.775DPO-17.238 DE.

This implies that a change in EPS by one unit leads to change in MPS by 1.371 units while similar changes in the other variables also by one unit leads to change in MPS by 9.071538, 0.2227572, 5.777947, -0.7748661 and -17.23795 for changes in DPS, NAVPS, PE, DPO and DE respectively.

R-Squared=0.7633 which means that 76.33% variations in MPS are explained by the variations in the explanatory variables. This is measure of the strength of association.

P value for EPS=0.018< 0.05 hence it is significant at 5% statistical level of significance and its coefficient values lies between 0.248 and 2.493 at the 95% confidence level, P value for DPS=0.00< 0.05 hence significant at 5% and its coefficient values lies between 5.763 and12.38, P value for NAVPS=0.006< 0.05 hence significant at 5% and its coefficient values lies between -

0.068 and 0.378, P value for PE=0.001< 0.05 hence significant at 5% and its coefficient values lies between 2.625 and 8.931, P value for DPO=0.007< 0.05 hence significant, while P value for DE=0.254> 0.05 thus not significant in explaining the changes in stock prices. Adjusted R-squared is 0.716.This is an adjusted R-squared now reduced/penalized to account for the extraneous predictors to the model. Thus is less than the R-squared meaning the explanatory power of the explanatory variables is now reduced.

Root MSE - Root MSE is the square root of the Mean Square Residual which is the standard deviation of the error term. Coef. - are the coefficient values for the regression equation used to predict the dependent variable from the explanatory variables. Std. Err. - are the standard errors associated with each coefficients.

The coefficients of EPS,DPS,NAVPS,PE and DPO are significantly different from 0 since their p values are less than 0.05(hence significant).The coefficient of DE is however, significantly not different from 0 since its p value is more than 0.05(hence not significant).

TABLE 4

Testing for Multicollinearity-Variance inflation factor (VIF)

variable	VIF	1/VIF
dpo	4.71	0.21223
pe	4.25	0.23504
dps	1.81	0.553
navps	1.45	0.69134
de	1.25	0.79763
eps	1.23	0.81462
Mean VIF	2.45	

2.45<4 or 10 hence no multicollinearity in the variables.

TABLE 5

Cameron & Trivedi's decomposition of IM test

Source	chi2	df	p
Heteroscedasticity	36.64	26	0.08
Skewness	6.37	6	0.384
Kurtosis	1.45	1	0.228
Total	44.46	33	0.088

Table 5 shows skewness(p value 0.384>0.05) and kurtosis(p value 0.228>0.05) is not significantly different from the normal distribution at 5% level of significance-value for heteroscedasticity is 0.08>0.05 errors are homoscedastic/thus the variance of the errors is constant.

4.2.2 Results for year 2012

TABLE 6

Descriptive statistics 2012

Variable	Obs	Mean	Std. Dev.	Min	Max
mps	37	84.07324	116.2756	3.2	493
eps	37	11.73676	20.84444	-1.15	97.61
dps	37	3.710541	5.981358	0.2	32.5
navps	37	81.95378	129.2344	2.11	711.03
pe	37	8.613243	7.186518	-11.99	31
dpo	37	38.06378	26.78745	-17.39	99.36
de	37	0.5095405	0.6489792	0.008	2.68

Table 6 shows that the average market price for shares at NSE is sh.84.07 with a standard deviation of 116.28, average earnings per share is sh.11.73 and a standard deviation of 20.84.The average values for the dividend per share, net assets value per share, price earnings ratio,

dividend payout ratio and leverage is sh.3.71,sh 81.95,sh8.61,38.06% and 0.51 respectively with standard deviations of 5.98,129.23,9.27.19,26.78 and 0.65 respectively.

TABLE 7

Correlation analysis 2012

	mps	eps	dps	navps	pe	dpo	de
mps	1.0000						
eps	0.7324	1.0000					
dps	0.8721	0.4516	1.0000				
navps	0.4123	0.8228	0.2553	1.0000			
pe	0.1897	-0.1165	0.1958	-0.2189	1.0000		
dpo	0.2680	-0.1393	0.5124	-0.1998	0.5130	1.0000	
de	-0.0615	-0.1169	-0.0910	-0.1077	0.0859	-0.0364	1.0000

The above result shows that the linear relationship between MPS and the selected variables is as follows:-

Strong positive at 0.7324 between MPS and EPS, strong positive at 0.8721 between MPS and DPS, Moderate positive at 0.4123 between MPS and NAVPS, weak positive at 0.1897 between MPS and PE, weak positive at 0.2680 between MPS and DPO, weak negative at -0.0615 between MPS and leverage(DE). This means there is positive relationship between MPS and majority of the explanatory variables EPS, DPS, NAVPS, PE while DE is negatively related to MPS.

TABLE 8

Regression analysis 2012

Source	SS	df	MS		Number of obs	37
					F(6, 30)	112.71
Model	466046.57	6	77674.4283		Prob> F	0
Residual	20674.2799	30	689.142663		R-squared	0.9575
					Adj R-squared	0.949
Total	486720.85	36	13520.0236		Root MSE	26.252
mps	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
eps	3.922048	0.4362046	8.99	0	3.031199	4.812897
dps	13.04651	1.103247	11.83	0	10.79338	15.29965
navps	-0.2958332	0.0622526	-4.75	0	-0.4229699	-0.168697
pe	1.914279	0.7288775	2.63	0.013	0.4257121	3.402845
dpo	-0.4473918	0.2439182	-1.83	0.077	-0.9455393	0.0507556
de	5.808047	6.844947	0.85	0.403	-8.171201	19.78729
_cons	11.458	10.24642	1.12	0.272	-9.467983	32.38398

Equation IV: MPS=11.458+3.922EPS+13.047DPS-0.296NAVPS+1.914PE-0.447DPO+5.808DE.

This implies that a change in EPS by one unit leads to change in MPS by 3.922048 units while similar changes in the other variables also by one unit leads to change in MPS by 13.04651,-0.2958332,1.914279, -0.4473918 and 5.808047 for changes in DPS,NAVPS,PE,DPO and DE respectively. However the variables dividend payout and leverage are not significant in explaining the changes to share price.

R-Squared=0.9575 which means that 95.75% variations in MPS are explained by the variations in the explanatory variables. This is a measure of the strength of association. P value for EPS=0.00< 0.05 hence it is statistically significant at 5% level of significance and its coefficient values lies between 3.03 and 4.81 at 95% confidence level, P value for DPS=0.00< 0.05 hence significant at 5% and its coefficient values lies between 10.79 and15.3, P value for

NAVPS=0.00< 0.05 hence significant at 5% and its coefficient values lies between -0.423 and -0.169, P value for PE=0.013< 0.05 hence significant at 5% and its coefficient values lies between 0.426 and 3.403, P value for DPO=0.077> 0.05 hence not significant while P value for DE=0.403> 0.05 also not significant in explaining the changes in stock prices. Adjusted R-squared is 0.949. This is an adjusted R-squared now reduced/penalized to account for the extraneous predictors to the model. Thus is less than the R-squared meaning the explanatory power of the explanatory variables is now reduced.

The coefficients of EPS, DPS, NAVPS and PE are significantly different from 0 since their p values are less than 0.05 (hence significant) .The coefficients of DPO and DE are significantly not different from 0 because its p values are more than 0.05(hence not significant).

TABLE 9

Testing for multicollinearity-Variance inflation factor (VIF)

Variable	VIF	1/VIF
eps	4.32	0.23155
navps	3.38	0.295758
dps	2.27	0.439603
dpo	2.23	0.44839
pe	1.43	0.697687
de	1.03	0.970074
Mean VIF	2.44	

Table 9 shows 2.44<4 or 10 hence no multicollinearity in the variables.

TABLE 10

Cameron & Trivedi's decomposition of IM test

Source	chi2	df	p
Heteroskedasticity	36.79	26	0.0781
Skewness	10.95	6	0.0899
Kurtosis	0.52	1	0.4699
Total	48.26	33	0.0420

Table 10 shows skewness(p value 0.0899>0.05) and kurtosis(p value 0.4699>0.05) is not significantly different from the normal distribution at 95% confidence level. P-value for heteroscedasticity is 0.078>0.05 errors are homoscedastic/thus the variance of the errors is constant.

4.2.3 Analysis on average variables for each firm.

TABLE 11

Descriptive statistics on average variables for each firm

Variable	Obs	Mean	Std. Dev.	Min	Max
mps	37	75.8927	95.70185	3.5	382.5
eps	37	9.476757	12.2067	-0.78	59.3
dps	37	3.703243	5.844342	0.21	31.5
navps	37	78.24027	118.9066	2.05	660.8
pe	37	7.820541	7.626937	-24.07	23.64
dpo	37	33.44162	38.40665	-136.74	98.9
de	37	0.478378	0.524714	0.01	2.16

Table 11 shows that the average market price for shares at NSE is sh.75.89 with a standard deviation of 95.70, average earnings per share is sh.9.48and standard deviation of 12.21.The average values for the dividend per share, net assets value per share, price earnings ratio, dividend payout ratio and leverage is sh.3.7, sh 78.24, sh7.82, 33.44% and 0.48 respectively with standard deviations of 5.84, 118.91, 7.63, 38.41 and 0.52 respectively.

TABLE 12

Correlation analysis on average variables for each firm

mps	eps	dps	navps	pe	dpo	de	
mps	1.0000						
eps	0.8605	1.0000					
dps	0.8334	0.6233	1.0000				
navps	0.4293	0.5758	0.3105	1.0000			
pe	0.2032	0.0001	0.1333	-0.2416	1.0000		
dpo	0.2647	0.0855	0.4147	-0.2099	0.7275	1.0000	
de	-0.0964	-0.1549	-0.1575	-0.0668	0.1128	-0.0238	1.0000

The above result shows that the linear relationship between MPS and the selected variables is as follows:-

Strong positive at 0.8605 between MPS and EPS, strong positive at 0.8334 between MPS and DPS, Moderate positive at 0.4293 between MPS and NAVPS, weak positive at 0.2032 between MPS and PE, weak positive at 0.2647 between MPS and DPO, weak negative at -0.0964 between MPS and leverage(DE). This means there is positive relationship between MPS and majority of the explanatory variables EPS, DPS, NAVPS, PE while DE is negatively related to MPS.

TABLE 13

Regression analysis on average variables for each firm

Source	SS	df MS	MS		Number of obs	37
					F(6, 30)	60.96
Model	304725.818	6	50787.6363		Prob> F	0
Residual	24992.583	30	833.086101		R-squared	0.9242
					Adj R-squared	0.909
Total	329718.401	36	9158.84447		Root MSE	28.863
mps	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
eps	4.426222	0.5967298	7.42	0	3.207537	5.644907
dps	9.15722	1.240068	7.38	0	6.624663	11.68978
navps	-0.0380498	0.0525998	-0.72	0.475	-0.1454731	0.0693734
pe	3.480624	0.9773947	3.56	0.001	1.484517	5.47673
dpo	-0.5638669	0.2169966	-2.6	0.014	-1.007033	-0.1207008
de	7.154728	9.448319	0.76	0.455	-12.14131	26.45077
_cons	-8.774315	9.460999	-0.93	0.361	-28.09625	10.54762

Equation V:MPS=-8.77+4.426 EPS+9.157 DPS-0.038NAVPS+3.481PE-0.564 DPO+7.155 DE. This implies that a change in EPS by one unit leads to change in MPS by 4.426 units while similar changes in the other variables also by one unit leads to change in MPS by 9.157,-0.038,3.481, -0.564 and 7.155 for changes in DPS,NAVPS,PE,DPO and DE respectively. However the variables net asset value and leverage are not significant in explaining the changes to share price.

R-Squared=0.9242 which means that 92.42% variations in MPS are explained by the variations in the explanatory variables. This is a measure of the strength of association. P value for EPS=0.00< 0.05 hence it is statistically significant at 5% level of significance and its coefficient values lies between 3.21 and 5.64 at 95% confidence level, P value for DPS=0.00< 0.05 hence significant at 5% and its coefficient values lies between 6.62 and11.69, P value for

NAVPS=0.475> 0.05 hence not significant at 5% and its coefficient values lies between -0.15 and 0.07, P value for PE=0.001< 0.05 hence significant at 5% and its coefficient values lies between 1.48 and 5.48, P value for DPO=0.014< 0.05 hence significant while P value for DE=0.455> 0.05 hence not significant in explaining the changes in stock prices. Adjusted R-squared is 0.909. This is an adjusted R-squared now reduced/penalized to account for the extraneous predictors to the model. Thus is less than the R-squared meaning the explanatory power of the explanatory variables is now reduced.

The coefficients of EPS, DPS, PE and DPO are significantly different from 0 since their p values are less than 0.05 (hence significant) .The coefficients of NAVPS and DE are significantly not different from 0 because its p values are more than 0.05(hence not significant).

TABLE 14

Testing for multicollinearity-Variance inflation factor (VIF)

Variable	VIF	1/VIF
dpo	3	0.333172
pe	2.4	0.416435
eps	2.29	0.436149
dps	2.27	0.44058
navps	1.69	0.59157
de	1.06	0.941526
Mean VIF	2.12	

2.12<4 or 10 hence no multicollinearity in the variables.

TABLE 15

Cameron & Trivedi's decomposition of IM test

Source	chi2	df	p
Heteroskedasticity	36.87	27	0.0975
Skewness	11.65	6	0.0703
Kurtosis	2.58	1	0.1085
Total	51.1	34	0.0301

Table 4.15 shows skewness(p value 0.0703>0.05) and kurtosis(p value 0.1085>0.05) thus the skewness and kurtosis are not significantly different from the normal distribution at 95% confidence level. P-value for heteroscedasticity is 0.0975>0.05 thus residuals are homoscedastic/thus the variance of the errors is constant.

4.3 Summary of findings

The study was conducted based on the secondary data on the variables MPS,EPS.DPS,NAVPS,DPO,and DE as obtained from NSE and CMA. Descriptive statistics, correlation analysis as well as multiple regression analysis were applied by use of STATA software.

It was found that a firm's dividend and earnings have the strongest positive relationship with the share price with DPS having the strongest positive relationship with MPS. The other variables are NAVPS,PE,DPO which were all found to have a positive relationship with share price while DE show a negative relationship. The variables EPS,DPS,and PE were found to be significant determinants of ordinary share prices and with a positive influence. NAVPS was also significant with a positive influence in 2011 and negative influence in 2012. DPO was found to have a negative relationship with share prices and significant in year 2011 but not significant in 2012.DE was found to have no significant influence in share prices.

The correlation results show that the linear relationship between MPS and the selected variables is as follows:-

Strong positive between MPS and EPS, strong positive between MPS and DPS, Moderate positive between MPS and NAVPS, weak positive between MPS and PE, weak positive between MPS and DPO and weak negative between MPS and leverage(DE). This means there is positive relationship between MPS and majority of the explanatory variables EPS, DPS, NAVPS, PE while DE is negatively related to share price (MPS).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Secondary data was collected from published annual financial statements and reports maintained at the NSE and the Capital Markets Authority (CMA). Data for the years 2011 and 2012 was collected for the purpose of this study. Data collected was used to measure the variables of study.

5.2 Conclusion

There was a positive relationship between DPS and MPS at NSE, Kenya. Dividend was also found to have a significant positive effect in explaining the changes in equity prices. This is in line with the dividend relevance theory developed by Gordon(1963) and Linter(1962) which states that dividend are relevant in determination of a firms value and hence its share prices. In this investors are of the opinion that dividends are less risky than the potential future capital gains that may result after a high retention. Hence they prefer higher dividends and high dividend payout firms. This leads to high demand for such shares resulting to a higher price.

There was a positive relationship between EPS and MPS at NSE, Kenya, and EPS was a statistically significant determinant of share prices at 5% level of significance. The higher the earnings the more the funds available for distribution to shareholders as well as wealth creation. Earnings are major factor as they signify the prospects a firm's future performance as well as its potential growth opportunities and thus is a determinant of stock prices. Thus the relationship was positive as expected. The NAVPS reported a positive relationship with share price. The relationship between the price earnings ratio(P.E) and MPS was also found to be positive. This was also found to have a significant positive effect on share prices at 95% confidence level. P.E

ratio represents market expectations on the firm's future performance. A higher P.E ratio indicates that investors expects the firm to have higher future earnings and thus are willing to pay more to acquire the firm's stake through shares. The relationship between the P.E ratio and share price is expected to positive. Leverage (DE) reported a negative relationship with the MPS. The DPO was found to have a negative influence on share price. This means that although firms need to pay a higher dividend to attract investors, this should not be at the expense of the retention. This is in line with the tax preference theory. This indicates that retained profits/earnings normally leads to capital gains(long-term) which are normally taxed at reduced rates compared to that of dividends. This causes investors to prefer firm with a low dividend payout ratio, thus low payout will lead to higher demand for such a firms shares and hence a higher price. Investors prefer higher retention which is ploughed back for investments in profitable undertakings which helps create more wealth to the firm and the investors. This in turn will also make the shares to be more competitive and fetch higher prices.

The positive relationship between MPS and EPS is as expected indicating the higher the firms earnings the higher the attractiveness of the firm to investors and potential investors making such a firms shares to be more competitive and thus fetch higher prices in the market. Investors will expect even better and improved returns in the future thus leading to the improved competitiveness.

The correlation results show that the linear relationship between MPS and the selected variables is as follows:-

Strong positive between MPS and EPS, strong positive between MPS and DPS, Moderate positive between MPS and NAVPS, weak positive between MPS and PE, weak positive between MPS and DPO and weak negative between MPS and leverage(DE). This means there is positive

relationship between MPS and majority of the explanatory variables EPS, DPS, NAVPS, PE while DE is negatively related to share price (MPS).

The correlation coefficients for MPS against the explanatory variables NAVPS,PE,DPO is also positive as expected where increased net asset value, wealth creation, firms growth, high dividend payout will be attractive to investors since it is a positive signal to better and improved financial performance in the future which will lead to better and improved returns to the investors.

5.3 Recommendations for Policy and Practice

The factors to be considered by investors, potential investors and firm's management when making investments decisions include the effect of the variables that influence the stock prices and the extent of that influence.

The management of every company normally would like to be associated with a firm whose share price is competitive in the market. The current and potential investors likewise prefers to invest in a company whose share price is competitive in order to get good value for their money/investments .The bulls and the bears in the securities market will also regard share price movements with a keen interest while looking for opportunities that can be exploited for purposes of taking advantage of such profitable opportunities either by going long or taking a short position from time to time depending on the prevailing circumstances. The bulls will buy securities to sell later at a profit where future prices are expected to rise. The bears will sell securities to buy later at a lower price where future prices are expected to fall, thus making profit.

Investors will have the information of the factors affecting stock prices and the extent to which they do. This will in turn assist them to make better informed and rational decision on

their investment options that is more beneficial and with a higher wealth creation. The knowledge of this micro economic variables and their behavior will also be useful to management in formulation of the best corporate policy that improves a firms competitiveness.

Firms seeking to raise capital for development project through equity financing, floatation of shares in NSE or initial public offer (IPO) will need to know the best level of the variable to maintain in the period preceding the floatation or IPO in order for the shares to fetch/realize competitive prices and best deals in the market.

The government in their regulatory role needs to relook at the behavior of the variables in order to design policies that best lead to stimulation of economic growth through better performance of the securities market that will in turn spur the economy to the expected direction.

Thus different stakeholders will be able to analyze the expected behavior of stock price movements resulting from changes in the various variables which includes, the EPS, DPS, NAVPS, DPO and DE. This will in turn help them make the best investment decisions depending on the prevailing circumstances.

5.4 Limitations of the Study

Not all data was available in the NSE because they had summarized data. The Capital markets authority (CMA) provided comprehensive data. However data for some years was missing. Not all firms used had all the required variables in their financial statements hence such could not be used and were excluded from this study.

Some of the market sectors had very few firms which qualified for the study, meaning that the results might not have reflected the general characteristics specific to such sectors.

5.5 Suggestions for Further Studies

A similar study may be carried out with the objective of addressing determinants of equity prices for each sector separately rather than the entire NSE as a whole. This would represent the effects of certain characteristics specific to each sector. Research could also be done that includes both quoted and unquoted firms which could give more insights into the determinants of equity prices for different sectors of the economy. A similar research could be undertaken that includes more independent variables. Also a research can be done to determine the effects of macro-economic variables on stock prices.

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APPENDICES

APPENDIX I
Listed Firms per Sector as at December, 2013

Agricultural Segment
1. Eaagads Ltd. Ord. 1.25
2. Kakuzi Ltd. Ord. 5.00
3. Kapchorua Tea Co. Ltd. Ord. 5.00
4. Limuru Tea Co. Ltd. Ord. 20.00
5. Rea Vipingo Plantations Ltd. Ord. 5.00
6. Sasini Ltd Ord. 1.00
7. Williamson Tea Kenya Ltd. Ord. 5.00
Commercial & Services
8. Express Ltd. Ord. 5.00
9. Kenya Airways Ltd. Ord. 5.00
10. Longhorn Kenya Ltd. Ord. 1.00
11. Nation Media Group Ord. 2.50
12. ScanGroup Ltd. Ord. 1.00
13. Standard Group Ltd. Ord. 5.00
14. TPS EA (Serena) Ltd. Ord. 1.00
15. Uchumi Supermarket Ltd. Ord. 5.00
Telecommunication & Technology
16. AccessKenya Group Ltd. Ord. 1.00

17. Safaricom Ltd. Ord. 0.05
Automobiles & Accessories
18. Car & General (K) Ltd. Ord. 5.00
19. CMC Holdings Ltd. Ord. 0.50
20. Marshalls (E.A.) Ltd. Ord. 5.00
21. Sameer Africa Ltd. Ord. 5.00
Banking
22.Barclays Bank Ltd. Ord. 0.50
23.CFC Stanbic Holdings Ltd. Ord. 5.00
24.Diamond Trust Bank Kenya Ltd. Ord. 4.00
25.Housing Finance Co. Ltd. Ord. 5.00
26.Kenya Commercial Bank Ltd. Ord. 1.00
27.National Bank of Kenya Ltd. Ord. 5.00
28.NIC Bank Ltd. Ord. 5.00
29. Standard Chartered Bank Ltd. Ord. 5.00
30.Equity Bank Ltd. Ord. 0.50
31.The Cooperative Bank of Kenya Ltd. Ord. 1.00
Insurance
32.Jubilee Holdings Ltd. Ord. 5.00
33.Pan Africa Insurance Holdings Ltd. Ord. 5.00
34.Kenya Re- Insurance Corporation Ltd. Ord. 2.50
35.Liberty Kenya Holdings Ltd. Ord. 1.00
36.British-American Investments Co. (K) Ltd. Ord. 0.10

37.CIC Insurance Group Ltd. Ord. 1.00
Investment
38.Olympia Capital Holdings Ltd. Ord. 5.00
39.Centum Investment Co. Ltd. Ord. 0.50
40.Trans-Century Ltd. Ord. 0.50
Manufacturing & Allied
41. B.O.C Kenya Ltd. Ord. 5.00
42. British American Tobacco Kenya Ltd. Ord. 10.00
43. Carbacid Investments Ltd. Ord. 5.00
44. East African Breweries Ltd.Ord. 2.00
45. Eveready East Africa Ltd. Ord. 1.00
46. Mumias Sugar Co. Ltd. Ord. 2.00
47. Unga Group Ltd. Ord. 5.00
Construction & Allied
48. Athi River Mining Cement Ord. 1.00
49. Bamburi Cement Ltd. Ord. 5.00
50. Crown Berger Kenya Ltd. Ord. 5.00
51. E.A. Cables Ltd. Ord. 0.50
52. E.A. Portland Cement Ltd. Ord. 5.00
Energy & Petroleum
53. KenGen Ltd. Ord. 2.50
54. KenolKobil Ltd. Ord. 0.05

55. Kenya Power & Lighting Co. Ltd. Ord. 0.50
56. Total Kenya Ltd. Ord. 5.00
57. Umeme ltd.

Source: Nairobi Securities Exchange.

APPENDIX II

Data Collection Tool/Sheet

YR	FIRM	MPS	EPS	DPS	NAVPS	DPO	P/E	DE
2012								
2011								

APPENDIX III

Data Collected/Variables

SECTOR		MPS	EPS	DPS	NAVPS	PE	DPO	DE
Banking	CIC stanbic	42	9.9	0.73	68.91	4.24	7.37	0.57
	Yr 2011	40	5.99	0.0001	70.62	6.67	0.00	1.2
	coop	13.3	1.84	0.5	7	7.1	27.17	0.27
	Yr 2011	9.6	1.53	0.4	6	6.4	26.14	0.14
	Diamond trust	115	17.44	1.9	75.06	6.6	10.89	0.23
	Yr 2011	90.5	13.14	1.7	59.25	6.88	12.94	0.34
	HFCK	15.5	3.22	1.4	22.28	4.8	43.48	2.51
	Yr 2011	12.4	2.7	1.2	20.47	4.59	44.44	1.8
	KCB	29.8	4.11	1.9	17.96	7.24	46.23	0.31
	Yr 2011	16.2	3.72	1.85	14.94	4.35	49.73	0.29
	NIC	38.3	6.03	1	28.51	6.34	16.58	0.38
	Yr 2011	24	5.54	0.5	19.38	4.33	9.03	0.19
	STD chartered	235	26.6	12.5	99.47	8.83	46.99	0.16
	Yr 2011	160	19.28	11	72.09	8.3	57.05	0.2
	Equity	19.3	3.26	1.25	11.59	5.9	38.34	0.833
	Yr 2011	16.4	2.79	0.8	9.26	5.88	28.67	0.825

	NBK	17.3	2.61	0.2	37.32	6.62	7.66	0.844
	Yr 2011	20.3	5.52	0.4	37.34	3.67	7.25	0.848
Agricultural	Eagads	34	1.36	1.25	35.38	25.07	91.91	0.181
	Yr 2011	69.5	8.93	1.25	42.33	7.78	14.00	0.278
	Kakuzi	72	19.35	3.75	142.92	3.72	19.38	0.223
	Yr 2011	69.5	28.06	3.75	140.65	2.48	13.36	0.257
	Kapchorwa	121	19.93	7.5	384.97	6.07	37.63	0.328
	Yr 2011	115	47.8	7.5	331.32	2.41	15.69	0.327
	Limuru tea	430	84.86	7.5	257.91	5.07	8.84	0.278
	Yr 2011	335	33.74	7.5	154.81	9.93	22.23	0.241
	Rea vipingo	17	6.34	1.1	35.31	2.68	17.35	0.23
	Yr 2011	14.8	7.79	1.1	31.06	1.89	14.12	0.269
	Williamson tea	230	97.61	7.5	711.03	2.36	7.68	0.306
		185	-46.74	12.5	610.46	-3.96	-26.74	0.216
Commercial and allied	Kenya airways	14	3.6	0.81	116.28	3.88	22.50	1.33
	Yr 2011	32.3	7.66	1.5	122.46	4.21	19.58	1.47
	Nation media	222	15.98	10	47.48	13.89	62.58	0.019
	Yr 2011	140	7.66	8	40	18.28	104.44	0.027
	Scan group	68.5	2.21	0.6	17.17	31	27.15	0.073
	Yr 2011	41.5	2.55	0.7	15.29	16.27	27.45	0.077
	TPS EA	40	3.33	1.3	77.17	12.01	39.04	0.398
	Yr 2011	55	4.16	1.3	77.7	13.24	31.25	0.431
	UCHUMI	15.9	1.03	0.3	10.32	15.4	29.13	0.03
Construction and allied	ARM	44.5	2.52	0.5	41.29	17.69	19.84	1.872
	Yr 2011	158	11.61	2	162.49	13.6	17.23	1.638
	Bamburi	185	12.17	10.5	118.58	15.21	86.28	0.167
	Yr 2011	125	14.45	10	92.3	8.65	69.20	0.175
	Crown paints	42.5	6.01	5.63	95	7.07	93.68	0.04
	Yr 2011	20.5	7.58	5.44	93	2.71	71.77	0.09
	EA Cables	11.7	2.06	1	14.68	5.67	48.54	0.27
	2011	10.6	1.24	0.5	11.53	8.48	40.32	0.283
Petroleum	Kenolkobil	9.95	2.22	1	8.96	4.47	45.05	0.131
	Yr 2011	10	1.3	0.52	7.81	7.69	40.00	0.025
	Kengen	8.6	1.28	0.6	67.39	6.7	46.88	1.157
	Yr 2011	13.6	0.95	0.5	68.11	14.32	52.63	1.035
	TOTAL(K)	13.9	-1.15	0.2	85.95	-12	-17.39	0.06
	Yr 2011	14.8	-0.41	1.05	69.79	-36.1	-256.10	0.328
Insurance	Kenya re	10.7	4	0.4	20.88	2.67	10.00	0.386

	Yr 2011	7.3	3.19	0.35	19.21	2.29	10.97	0.396
Investments	Transcentury	23.5	1.66	0.4	27.36	14	24.10	1.13
	Yr 2011	27	1.321	0.25	24.63	21	18.93	1.216
Manufacturing	BOC	99.5	10.11	5.05	75.1	9.84	49.95	0.008
	Yr 2011	100	7.71	6.8	69.55	12.96	88.20	0.02
	BAT(K)	493	32.71	32.5	70.98	15.1	99.36	0.285
	Yr 2011	246	30.98	30.5	64.12	7.9	98.45	0.312
	CARBACID	125	11.46	6	54.82	10.91	52.36	0.127
	Yr 2011	91.5	8.89	5	49.86	10.29	56.24	0.155
	EABL	227	13.46	8.75	40.59	16.87	65.01	2.68
	Yr 2011	193	9.31	8.75	43.01	20.73	93.98	0.271
	Mumias sugar	6.1	1.32	0.5	14.17	4.64	37.88	0.379
	Yr 2011	7.15	1.26	0.5	13.05	5.66	39.68	0.396
	UNGA LTD	12.6	2.81	0.75	84.67	4.49	26.69	0.114
	Yr 2011	10	3.57	0.75	75.4	2.8	21.01	0.092
Telecommuni-cation	Access k	4.41	0.69	0.3	5.72	6.39	43.48	0.375
	Safaricom	3.2	0.32	0.22	2.11	10.14	68.75	0.169
	Yr 2011	3.8	0.33	0.2	1.99	11.55	60.61	0.182

APPENDIX IV

Average variables for each firm

SECTOR	FIRM	MPS	EPS	DPS	NAVPS	PE	DPO	DE
Banking	cicstanbic	41.00	7.95	0.37	69.77	5.46	3.69	0.89
	coop	11.45	1.69	0.45	6.50	6.75	26.66	0.21
	diamond trust	102.75	15.29	1.80	67.16	6.74	11.92	0.29
	hfck	13.93	2.96	1.30	21.38	4.70	43.96	2.16
	kcb	22.98	3.92	1.88	16.45	5.80	47.98	0.30
	NIC	31.13	5.79	0.75	23.95	5.34	12.80	0.29
	STD chartered	197.50	22.94	11.75	85.78	8.57	52.02	0.18
	equity	17.83	3.03	1.03	10.43	5.89	33.51	0.83
	nbk	18.75	4.07	0.30	37.33	5.15	7.45	0.85

Agricultural	eagads	51.75	5.15	1.25	38.86	16.43	52.95	0.23
	kakuzi	70.75	23.71	3.75	141.79	3.10	16.37	0.24
	kapchorwa	118.00	33.87	7.50	358.15	4.24	26.66	0.33
	limuru tea	382.50	59.30	7.50	206.36	7.50	15.53	0.26
	rea vipingo	15.88	7.07	1.10	33.19	2.29	15.74	0.25
	williamson tea	207.50	25.44	10.00	660.75	(0.80)	(9.53)	0.26
Commercial	kenya airways	23.10	5.63	1.16	119.37	4.05	21.04	1.40
	nation media	181.00	11.82	9.00	43.74	16.09	83.51	0.02
	scan group	55.00	2.38	0.65	16.23	23.64	27.30	0.08
	TPS EA	47.50	3.75	1.30	77.44	12.63	35.14	0.41
	UCHUMI	15.90	1.03	0.30	10.32	15.40	29.13	0.03
Construction	ARM	101.25	7.07	1.25	101.89	15.65	18.53	1.76
	Bamburi	155.00	13.31	10.25	105.44	11.93	77.74	0.17
	crown paints	31.50	6.80	5.54	94.00	4.89	82.72	0.07
	EA CABLES	11.13	1.65	0.75	13.11	7.08	44.43	0.28
Petroleum	kenolkobil	9.98	1.76	0.76	8.39	6.08	42.52	0.08
	kengen	11.08	1.12	0.55	67.75	10.51	49.75	1.10
	TOTAL(K)	14.30	(0.78)	0.63	77.87	(24.07)	(136.74)	0.19
Insurance	kenya re	9.00	3.60	0.38	20.05	2.48	10.49	0.39
Insurance	transcentury	25.25	1.49	0.33	26.00	17.50	21.51	1.17
Manufactu-ring	BOC	99.75	8.91	5.93	72.33	11.40	69.07	0.01
	BAT(K)	369.50	31.85	31.50	67.55	11.50	98.90	0.30
	CARBACID	108.25	10.18	5.50	52.34	10.60	54.30	0.14
	EABL	210.00	11.39	8.75	41.80	18.80	79.50	1.48
	Mumias sugar	6.63	1.29	0.50	13.61	5.15	38.78	0.39

	UNGA LTD	11.30	3.19	0.75	80.04	3.65	23.85	0.10
Telecomm-unication	access k	4.41	0.69	0.30	5.72	6.39	43.48	0.38
	Safaricom	3.50	0.33	0.21	2.05	10.85	64.68	0.18