A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF VALUE AND GROWTH STOCKS AT THE NAIROBI SECURITIES EXCHANGE KENYA

BY

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DECLARATION

This Research project is my original work and has not been submitted for examination in any other University.

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This Research project has been submitted for examination with my approval as University Supervisor.

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DEDICATION

I dedicate this research project to my Mum, Sisters and best friend Wanja– for your steadfast love and encouragement throughout my pedagogical Endeavour's.

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To all, I remain forever grateful

ABSTRACT

In making investments, investors will always wish to employ strategies that will realize superior performance. One of the most important developments in equity management is the creation elf portfolio strategies based on value-oriented and growth-oriented strategies, where value stocks have been defined as stocks with a higher of earnings yields, book-market value, dividend yield, or cash flow to price ratio, and growth stocks as those with a low of these ratios. This study sought to compare the performance of value and growth stocks at the Nairobi Securities Exchange (NSE), Kenya.

This study adopted a quantitative research design. The study adopted a Quantitative comparative design. The population comprised all the 56 listed companies at the NSE as of 31st December, 2011. Because the study applied secondary data and some of these are already available, the study included all the 56 companies in the analysis according to the trading sector. The study used secondary data on the Price Earnings Ratio and Price to book ratios for both the growth and value stocks. The data collected from the financial statements of the respective companies presented to the NSE. The data analysis methods involved calculating financial ratios which include the Price to earnings, price to book ratios, and dividend yield.

The study concluded that the agricultural segment was majorly comprised of growth stocks as majority of the companies in this segment recorded a lower of all the three ratios used. The Industrial and allied segment together with the finance and Investment segments comprised of the value stocks because they all posted a somewhat higher of the three ratios used in the analysis. The value stocks posted low performance in terms of Price earnings, price to book ratios and dividend yield while growth stocks continuously posted high performance. The study recommended that the companies quoted at the NSE need to make their policies clear especially as regards the kind of investors they would like to attract. The study further recommended that the Government of Kenya looks at ways of improving the performance of the agricultural segment especially for the firms listed at the NSE.

TABLE OF CONTENTS

LIST OF TABLES

ABBREVIATIONS

ATS   Automated Trading System

CBK   Central Bank of Kenya

NSE   Nairobi Securities Exchange

MTBV   Market to Book Value

P/E   Price earnings ratio

C/P   Price/Cash flow Ratio

EMH   Efficiency Markey hypothesis

EPS   Earnings Per Share

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Over the years the financial markets have developed to now offer investors a variety of asset classes. Each asset class is judged on its contribution in terms of risk and return but the combination of a variety of stocks can provide a different risk and return for the portfolio **in** overall (Bodie, Kane & Marcus, 2004). Value and growth represent two opposite investment styles when price multiples such as the price- to-earnings ratio and the price-to-market ratio are used to classify the investment styles of equities (Chan and Lakonishok, 2004). Investors who invest in value stocks believe that the stocks are temporarily underpriced by the market and are willing to hold on to these stocks until their potentials are realized. Although value stocks average higher returns than growth stocks, a value tilt does not ensure a positive alpha over any given period because growth often outperforms value (Lakonishok, Shleifer and Vishny, 1994). Growth stocks, on the other hand, are those companies that have high growth potential in their sales and earnings and are generally highly priced by market investors. Using the price-to- earnings multiple as a measure of the relative valuation of the firm by the investment public, stocks with lower price-to-earnings multiples referred to as value stocks are found to outperform stocks with higher price-to-earnings multiples which are called growth stocks (Broussard, Michayluk and Neely, 2005).

Several authors (Markowitz (1991), Elton and Gruber (1997)) have discussed the main issues that an individual faces when investing, one of them being how to allocate the resources among alternative assets. Investors are known to be rational such that they maximize profits with as low risk as possible. The question of whether capital markets are efficient has been the most controversial areas in investment research. Fama (1991) presented the efficient market theory in terms of a fair game model, contending that investors can be confident that a current market price fully reflects all available information about a security and the expected return based upon this price is consistent with its risk.

1.1.1 Value stocks

Value investing is an approach of investing that makes use of fundamental analysis, a rational analysis of securities based on an understanding of the business in which to invest (Lowe, 2001). Value investing is thus related to the analysis of company's performance which covers the financial statement study, the management transparency consideration, the analysis of competitiveness compared to that of the company's competitors, and the use of various financial ratios including the ratios relating to market value of the company, such as price to earnings (P/E) ratio, price to book (P/B) ratio and a fair value assessment of the company (O'Neil, 2002).

Value stocks are stocks with low P/E ratios. Value investing strategy is an investment strategy of stock selection based on low P/E ratio which leads to the approach where the company's growth is incorporated in the analysis, resulting in the price/earnings to growth (PEG) ratio.

1.1.2 Growth Stocks

A growth stock is a stock of a company that generates substantial and sustainable positive cash flow and whose revenues and earnings are expected to increase at a faster rate than the average company within the same industry (O'Neil, 2002). A growth company typically has some sort of competitive advantage like a new product, a breakthrough patent or overseas expansion that allows it to fend off competitors (Lowe, 2001). Growth stocks usually pay smaller dividends, as the company typically reinvests retained earnings in capital projects. Growth investing is about finding stocks that are showing high and accelerating earnings growth.

Growth investing is a style of investment strategy where investors invest in companies that exhibit signs of above-average growth, even if the share price appears expensive in terms of metrics such as price to earnings or price to book ratios. Growth investors look for companies that traditionally have high growing earnings. Therefore, growth stocks are equity securities with high price earnings per share and price to book ratio. In theory, high growth equals high stock prices and in turn, high profits. People involved in growth investing take their risks wagering that young, upcoming companies will break through and become leaders in their industry. When you think of this investment strategy, think Google.

1.1.3 Factors influencing the performance of Equity Stocks

Like any other commodity, in the stock market, share prices are also dependent on so many factors. The volatile nature of most markets makes it sometimes difficult to analyze the exact reasons for various kinds of movements in equity prices and performance from

3

time to time. Some of the widely discussed factors affecting the performance of equity stocks include: company performance, investor behavior, economic growth data, political conditions, and valuation of stocks (Somoye, Akintoye and Oseni, 2009).

While stock investing or stock trading, investors first of all look for profitable bets. They will be booking profits at every level which can bring down stock prices. So, investor behavior in stock markets affects stock prices greatly as stock prices see an all time high in times of bull market, while they can correct to a great extent in a bearish market trend. Economic growth data is another major factor that affects the stock price of a company. Stock prices react in a positive way if the growth of all the sectors of the economy is consistent. Otherwise they react by falling sharply. Sectors such as automobiles, banking and financial services, metal and commodities, capital goods and infrastructure depend largely on economic conditions (Udegbunam and Eriki, 2001). In times such as economic recession, stocks will be cheaper than they were in times of market high as the purchasing power of the investors erodes away. Political conditions prevailing in a country also affect the stock prices. For a steady economic growth, a stable and effective government is required. In the absence of a conducive political environment, the entire stock market is expected to take a hit. In addition, investors consider the valuation of stocks before purchasing them and they may postpone buying stocks if the current valuation is not good enough. This can affect the price of the stock in a negative manner (Somoye, Akintoye and Oseni, 2009).

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange was constituted as a voluntary association of stock brokers registered under the societies Act in 1954 and in 1991 the Nairobi Stock Exchange was incorporated under the companies Act of Kenya as a company limited by guarantee and without a share capital (Kibuthu, 2005). Subsequent development of the market has seen an increase in the number of stockbrokers, introduction of investment banks, establishment of custodial institutions and credit rating agencies and the number of listed companies have increased over time. Securities traded include, equities, bonds and preference shares (NSE, 2012).

In 1996, the largest share issue in the history of NSE, the privatization of Kenya Airways, came to the market. In May 2006, NSE formed a demutualization committee to spearhead the process of demutualization. In September 2006 live trading on the automated trading systems of the Nairobi Securities Exchange was implemented. In July 2007 NSE reviewed the Index and announced the companies that would constitute the NSE Share Index. The review of the NSE 20-share index was aimed at ensuring it is a true barometer of the market. In 2008, the NSE All Share Index (NASI) was introduced as an alternative index (NSE, 2012). Its measure is an overall indicator of market performance. The Index incorporates all the traded shares of the day. Its attention is therefore on the overall market capitalization rather than the price movements of select counters. The Nairobi Securities Exchange marked the first day of automated trading in government bonds through the Automated Trading System (ATS) in November 2009. The automated trading in government bonds marked a significant step in the efforts by the NSE and CBK

towards creating depth in the capital markets by providing the necessary liquidity (NSE, 2012).

In July 2011, the Nairobi Stock Exchange Limited changed its name to the Nairobi Securities Exchange Limited. The change of name reflected the strategic plan of the Nairobi Securities Exchange to evolve into a full service securities exchange which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments. In September 2011 the Nairobi Securities Exchange converted from a company limited by guarantee to a company limited by shares and adopted a new Memorandum and Articles of Association reflecting the change. In October 2011, the Broker Back Office commenced operations. The system has the capability to facilitate internet trading which improved the integrity of the Exchange trading systems and facilitates greater access to our securities market (NSE, 2012).

1.2 Statement of the Problem

In order to be successful on the Security market as an investor or as mutual fund manager, one should know the shortcomings of the average investor and should be able to make rational decisions in which companies to invest and at what prices to buy and sell their equities. The huge increase in stock turnover shows that many investors change their portfolio frequently and swap stocks at a very high rate (French, 2008). William, Sharpe, Carlo Capaul and Ian Rowley examined the comparative investment returns of low price to book value stocks (growth stocks) in France, Germany, Switzerland, the United Kingdom, Japan and the USA (1993).Their study concluded that value stocks

outperformed growth stocks on average in each country during the period studied, both absolutely and after adjustment for risk.

Controversy exists on whether the superior returns of value stocks represent an exception to Efficient Market Hypothesis. Fama and French (1992, 1993) suggest that the large returns observed on value stocks would be compensation for bearing risk and thus would be consistent with market efficiency. Other researchers however contend that the performance of value stocks violates rational pricing. Haugen (1993) and Shefrin and Statman (1995) all argue that investor expectations concerning value stocks are systematically biased. Investments strategies using P/E and P/B have been thoroughly studied and have long been documented as two approaches that generate significant abnormal returns while risk adjusted strategies have been ignored. Portfolio managers and investors will be interested to know whether returns derived from utilizing risk adjusted models would be higher than strategies that use P/E or P/B ratios.

Most previous research, Fama and French (1992), Chan, Hamao and Lakonishok (1991) and Basu (1977) show that value stocks outperforms growth stocks. A majority of these studies have been performed on the developed, world's largest stock markets and I have not found a study that specifically focuses on the Nairobi Stock Exchange which is relatively small. Locally, Ndungu (2004) did an empirical investigation on the size effect at the Nairobi Stock Exchange where it was established that the size of the firm greatly affected the performance of its share performance at NSE. Atiti (2005) did an empirical analysis of momentum in prices at the Nairobi Stock Exchange. Mukoba (2007) studied corporate governance reforms and performance of companies listed at the NSE. This paper will attempt fill the gap using the Treynors and Jensen models which are risk

adjusted. This study will form stock portfolios based on ranked values of the P/E and P/B ratios and apply the Treynors and Jensen Models to determine if dominance can be established among the portfolios. If value stocks are rationally priced and the market is efficient, no dominances can be established among the high P/E, P/B and low P/E, P/B portfolios. If, however, dominances are established on the basis of P/E and P/E then value stocks are not rationally priced and the market is not efficient. From the above discussions, it was evident that limited literature is available on the performance of value and growth stocks at the Nairobi Securities Exchange (NSE) in Kenya. This study therefore sought to fill this research gap by answering the following question:

How does the performance of value and growth stocks at the Nairobi Securities Exchange (NSE) in Kenya Compare?

1.3 Objective of the Study

To compare the performance of value and growth stocks at the Nairobi Securities Exchange (NSE), Kenya

1.4 Significance of the Study

The study would be important to various stakeholders, key among them being:

The study would contribute to the existing body of knowledge on the relationship between value and growth investing strategies especially for the Kenyan NSE market where currently there is limited knowledge and thus serve as a source of reference for further research. The recommendations for future research would also help researchers to

carry out more studies to extend the understanding of how value stocks compare to growth stocks at the Nairobi Securities Exchange.

The study would help investors and investment analysts in understanding the behaviour of the stock market thus inform their investment strategies. The investors together with investment analysts would use the findings of this study to determine the best investing strategies for the NSE market.

The study would enable policy makers understand the growing need to formulate monetary policies that would be responsive to changes in NSE trading patterns and returns for the investors and the firms involved. The effectiveness of a security exchange should therefore be anchored on the potency of its ability to eliminate insider trading and giving some quotas undue advantage over other investors.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the related literature on the subject under study as presented by various researchers and scholars. The review has drawn materials from several sources that are closely related to the theme and objective of the study. The chapter covers: theoretical review, Empirical Review and chapter Summary.

2.2 Theoretical Review

2.2.1 Efficient Market Hypothesis (EMH)

The Efficient Market Hypothesis (EMH) states that at any point in time asset prices should fully reflect all available information (Damodaran, 2002; Ross et al. 2005). Since the price reflects all available information, investors cannot expect to make abnormal profits. Abnormal profits also called abnormal return, is the excess return of a portfolio given the re-turn of a market portfolio. It is the difference between actual return and the expected return from market movements. Abnormal returns can be positive, i.e. when the portfolio has beaten the market, or negative, i.e. when the market has beaten the portfolio. (Ross et al. 2005).

The EMH does not state that the market price of an asset or investment must be equal to the true value at any point in time, but merely that the errors in market price are unbiased, i.e. that the stock price can actually be higher or lower than the true price as long as these

errors are random. This random error term implies that at any point in time, there is an equal chance that the stock is under- or overvalued. So in an efficient market, stocks with low P/E ratios should have an equal chance of being undervalued as stocks with high P/E ratios (Damodaran, 2002).

In 1970 Eugene Fama (1970) presented an influential article where he divided the efficient market into three forms; weak, semi-strong and strong. The weak form of market efficiency states that it is not possible for investors to make abnormal profits based on knowledge of past stock performance. This due to the fact that the stock price follows a specific random process called a random walk, meaning that new information will affect the price through an error term and future prices cannot be predicted from past prices (Fama, 1970).

The semi-strong form of market efficiency states that, in addition to the rules of the weak form, it is not possible for investors to make abnormal returns based on information that is publicly known. This due to the fact that a semi-strong market quickly responds to publicly announced information and will therefore adjust the stock price to a correct level (Fama, 1970).

The strong form of market efficiency states that an investor will not be able to make abnormal profits based on any information, neither public nor private (such as insider information). This is due to the fact that the stock price reflects all available information at all times and no investor will have superior information that will not already been taken into account (Fama, 1070)

2.2.2 Random Walk Hypothesis

The Efficient Market Hypothesis is consistent with the Random Walk Hypothesis. An example of Random Walk can be taken from a drunken sailor – a man starts at a point zero and takes a step in any direction. He then takes a second step, at any randomly oriented angle to the first, then a third to any direction, and continues for a while. If we assume that the person continues walking randomly for let's say 15 minutes, the best estimate would be that he'll end up in the same place where he started. The same might be applied for the stock prices if rises follow the falls and they do not depend on any given data. In this case there is no chance to earn any abnormal profit and the best investment strategy would be holding the market portfolio, Shleifer A. (2000). It is impossible to earn a profit from trading, because you cannot predict the change in the prices – the market is precisely responding to the new information. This means that if the reality of the market is that the prices follow the Random Walk, then trying any other trading strategies, which rely on some sort of historical sequence to predict the stock market movements in the future is a waste of time. However, according to E. Fama, 1965, the faster the analyst can identify situations with differences between the prices and their intrinsic value the longer he will do better than the investor just using a buy and hold strategy. Following this, the more sophisticated analysts exist in the market, the more efficient the market is and it is more likely to follow the Random Walk. Such assumption throws the fundamental analysis, which depends on analyzing the quality of management, economy or industry factors, out of the picture.

2.2.3 Behavioral Finance Theory

The behavioral finance ideas started emerging in the early 1990s opposing the Efficient Market Hypothesis with research based on the judgment and decision makes process of the participants of the financial markets. Thaler (1993) called behavioral finance as "simply open-minded finance". What makes behavioral finance theory different from the classical finance is that it is not only based only on mathematical calculus, but it applies all other social sciences as psychology, sociology, anthropology, political science or, since recently, neuroscience.

The main ideas of this discipline were inspired by the breakthrough studies by psychologists Kahneman and Tversky (1974) on human biases and cognitive errors, which later developed to what is called a prospect theory. In this section I will review the main aspects of prospect theory, human biases influencing their irrational behavior in the markets and provide some ideas on arbitrage. There is a huge number of aspects that behavioral finance is scoping, so in the following pages I review only those ones which I see relevant for my further analysis.

2.2 .4 Prospect Theory

This theory was developed by Kahneman and Tversky (1979). The theory focuses on subjective decision-making influencing investors' value system (Filbeck and Horvath, 2005). Nonetheless, this theory is criticized for failing to explain why people are attracted to both insurance and gambling. People tend to under-weigh probable outcomes compared with certain ones and people response differently to the similar situations

depending on the context of losses or gains in which they are presented (Kahneman and Perttunen, 2004).

Prospect theory describes some states of mind affecting an individual's decision-making processes including Regret aversion, Loss aversion and Mental accounting. Regret is an emotion occurs after people make mistakes. Investors avoid regret by refusing to sell decreasing shares and willing to sell increasing ones. Moreover, investors tend to be more regretful about holding losing stocks too long than selling winning ones too soon (Forgel and Berry, 2006). Mental accounting is a term referring to the process by which people think about and evaluate their financial transactions (Barberis & Huang, 2001). Mental accounting allows investors to organize their portfolio into separate accounts. Rockenbach (2004) suggests that connection between different investment possibilities is often not made as it is useful for arbitrage free pricing.

2.3 Measurement of Value and Growth Stocks

2.3.1 The Price to Earnings ratio (P/E)

The P/E looks at the relationship between the stock price and the company's earnings. P/E is calculated by taking the share price and dividing it by the company's EPS (Kwag, 2006).

$$P/E = \text{Stock Price} / \text{EPS}$$

The P/E gives an idea of what the market is willing to pay for the company's earnings. The P/E ratio, or price in relation to the company's earnings, gives an indication of how low or high the price of the stock is in relation to the earnings. A low P/E ratio indicates that the price is very modest compared to its earnings capability. Conversely, a high P/E

ratio indicates that the price is very high compared to its earnings capability. A low ratio then could mean that the stock is cheap (or underpriced) and a high ratio could mean that the stock is dear (or overpriced). Therefore, a stock with a low P/E ratio is considered to be in the value category.

2.3.2 Market to Book Value (MTBV)

Market to Book Value gives an indication of the price (market value) in relation to its book value (the total value available in the balance sheet). A high ratio indicates that the market price is much higher than the book value. Conversely, a low ratio means that the stock is trading close to (or even below) the book value of the company. This means that a company with a low ratio is considered to be a value stocks since there is a possibility that the company is underpriced (Kwag, 2006).

2.3.3 The price/cash flow ratio (C/P)

The price/cash flow ratio (also called price-to-cash flow ratio or P/CF), is a ratio used to compare a company's market value to its cash flow. It is calculated by dividing the company's market capitalization by the company's operating cash flow in the most recent fiscal year (or the most recent four fiscal quarters); or, equivalently, divide the per-share stock price by the per-share operating cash flow. In theory, the lower a stock's price/cash flow ratio is, the better value that stock is (Kwag, 2006).

$$\text{Price to Cash Flow} = \frac{\text{Share Price}}{\text{Cash Flow per Share}}$$

Price to cash flow is a measure of the market's expectations of a firm's future financial health. Because this measure deals with cash flow, the effects of depreciation and other

non-cash factors are removed. Similar to the price-earnings ratio, this measure provides an indication of relative value.

2.3.4 Dividend Yield

Dividend yield is a financial ratio that shows how much a company pays out in dividends each year relative to its share price. In the absence of any capital gains, the dividend yield is the return on investment for a stock (Kwag, 2006). Dividend yield is calculated as follows:

$$= \frac{\text{Annual Dividends Per Share}}{\text{Price Per Share}}$$

2.4 Empirical Review

Several researchers and scholars have looked at the performance of growth and value stocks around the world. Eklund (2012) studied the performance of value-investing strategies in Sweden between the year 2000 and 2010. Eklund (2012) sought to establish whether the so called "value" investing strategies outperform the market in terms of risk adjusted returns in the listed equities market of Sweden and if it did, does the same apply to the opposite of value strategies? Eklund (2012) indicated that value investing is potentially a market anomaly not yet corrected for ever though the concept of "buy low-sell high is very much in operation in many stock markets. In conclusion, Eklund (2012) says that potential explanation of the value market anomalies that are based on irrationality seem to have some merit. Intuitively, systematic and persistent irrational human bahaviour would a plausible explanation for the success of practical investment

concepts based on buying hypothetically undervalued assets in expectation that the market has temporary overreacted intuitively could explain value outperformance as investors tend to overshoot in pessimism more often in the lowest valued quartiles of the market while overconfidence or over optimism would explain why highest valued quartiles of the market over time tend to be unable to support even loftier future valuation levels. Practically, robust findings of superior risk reward for valued investing strategies over the market could imply that investors are still under-exploiting such behavioural characteristics.

Tversky and Kahneman (1974) did a study on the judgments under uncertainty to establish whether they were heuristics or biases. They established that people were overconfident about their abilities. Their findings showed that when the markets are booming and everyone is earning money; people tend to attribute these achievements to their own ability to choose a winning stock. They explained this by a wish to stay in control even when people are not in control and underestimate the risks of the market. Moreover, when individuals get overconfident they trade more than they should and lose huge amounts due to costs. Odean and Barber (2000) find that individual households in the United States which trade at a highest rate on average earn 6% less than the market portfolio and this underperformance can be explained by overconfidence. According to R. Shiller (2000) overconfidence is one of the main factors why high trading volumes can be observed in.

Larson (2005) studied growth and value stocks by analyzing the risks associated with value's outperformance of growth. He concluded that with the overall stock market environment always changing, it is difficult to determine why stocks react a certain way

and how they are likely to react. It is for this reason that identifying the primary risk factor(s) causing values' superior performance is critical. It would simply give investors one more tool to use while attempting to reap greater returns with less overall uncertainty.

Basu (1977) determined that stocks with low P/E (price-to-earnings) ratios tend to have higher average returns than stocks with high P/E ratios. These stocks with low P/E ratios are considered today as value stocks, thus the data showed value as having greater returns than growth. However, at the time of publication, there was no talk about value or growth: that didn't become popular until the early 1990's. Fama and French (1992) used the efficient market hypothesis (EMH) to explain the higher returns of value strategies. This hypothesis states that increased return should reflect increased risk. However, Lakonishok, Shleifer, and Vishny (1994) argued against the efficient market hypothesis and attributed the increased returns of value to both agency costs and some underlying investor behaviors. There have been multiple spin-offs of these first two trailblazing studies, but there is still no consensus on the underlying risk factor or factors that attribute to the increased returns of value investment strategies.

Fama and French (1992) made a study on the US stock market between 1963 and 1990. They described the relations between, market β, market capitalization, P/E, leverage and P/B with average returns. Their conclusion was, firstly that β does not seem to explain average returns, hence rejecting the Sharpe-Lintner-Black model (that there is a positive relationship between β and average stock returns), secondly the combination of size and P/B absorbs the role of leverage and P/E when describing average returns. Their final and

main conclusion was that market capitalization and the P/B multiple best describe average stock-returns, where P/B is the most powerful explanatory variable of the two.

Chan, Hamao and Lakonishok (1991) described differences in expected returns on the Japanese stock market between 1971 and 1988. They based their study on four variables: P/E, market capitalization, P/B and P/CF. Their choice of predictor variables was motivated by the fact that these variables were shown most applicable on the US stock market and the practice of fundamental security analysts. A theoretical justification for these variables was, as the authors put it: "out of the scope of this paper" (Chan et al. 1991). The size effect was, as earlier studies conclude, dependent on the specific model and time period. Earnings yield did not seem to be related to stock returns in their study, but their research showed a clear relationship between expected stock returns and the P/B multiple and cash flow yield, where the companies with the lowest P/Bs posted the highest returns. They also concluded that their variables are more or less correlated; low P/B companies tend to have low P/CF.

Basu (1977) conducted a study between 1957 and 1971 where he determined the relation-ship between investment performance of US stocks and their P/E ratios. He grouped securities by their P/E ratios and formed portfolios out of these groups. The portfolios were held for a year and then reinvested with the same criteria as before. This procedure takes into account that stock prices and reported earnings fluctuate during a year, creating different P/E ratios. He found that low P/E portfolios beat high P/E portfolios by about 4% per annum and this was not due to levels of systematic risk. He concluded that investors are able to profit from strategies based on buying low P/E companies; hence the US capital market is not truly efficient.

Most of the empirical research conducted on African stock markets takes into consideration several countries at the same time. Magnusson and Wydick (2002), using three successively stronger tests of random walk, have shown that equity markets in Ghana and Zimbabwe, not passing any of the tests, are not weak-form efficient; Botswana passed only the first test, namely the partial autocorrelation function test, implying that future price changes were uncorrelated with past price changes but the variance of past prices could be used to predict future volatility. The results obtained from implementing a test of evolving efficiency over the period 1990-2001 by Jefferis and Smith (2005) illustrate that the JSE was weak-form efficient during the period, Egypt, Morocco and Nigeria became efficient towards the end, Mauritius showed a slow tendency towards efficiency whereas Kenya and Zimbabwe displayed no tendency at all.

Moving to the empirical studies concentrating on individual African markets, Dickinson and Muragu (1994), through serial correlation analysis and runs test, have provided results for the NSE that do not contradict the weak-form efficiency; Olowe (1999), examining the Nigerian stock market through serial correlation test, has reached the same conclusion. On the other hand, Bundoo (2000), applying the same technique as Olowe (1999), has shown significant positive first-order auto-correlation in returns, implying weak-form inefficiency for the stock exchange of Mauritius.

2.5 Overview of Literature and Research Gaps

The majority of the studies have focused on developed economies where the weak-form efficiency tests have hardly been rejected (Kendall, 1953 and Fama, 1970). Despite some studies have witnessed predictability of future price changes in these markets (Poterba and Summers, 1988; Hudson, Dempsey and Keasy, 1996), no evidence of profitable

trading strategies based on that predictability has been shown. Hence, developed financial markets as a whole have proved to be weak-form efficient.

In contrast, evidence from emerging countries is controversial. Most of the research conducted on emerging markets have examined Asian and Latin American stock markets, produce mixed results. Sharma and Kennedy (1977) tested random walk hypothesis on Bombay stock exchange and proved it as a weak-form efficient market. The same result has been obtained by Barnes (1986) on the Kuala Lumpur stock exchange. The Taiwan Stock Exchange is also weak-form efficient as shown by Chang et al. (1996) and Chang and Ting (2000). Alam *et al.* (1999), by performing variance ratio tests, could not reject the hypothesis of weak-form efficiency for Hong Kong, Malaysia, Taiwan and Bangladesh, whereas it was rejected for Sri Lanka, which was also confirmed by Abeysekera (2001). On the other hand, for Shangai and Shenzen stock exchanges, the null hypothesis of weak-form efficiency is rejected by Mookerjee and Yu (1999) and Groenewold *et al.* 2003).

The empirical evidence produced on African equity markets is not as abundant as for other emerging markets with the additional drawback that most of this empirical research has focused on the Johannesburg Stock Exchange (JSE) in South Africa. Thomson and Ward (1995) collected the results from previous studies on the JSE in one extensive review providing mixed evidence; however, they leaned towards concluding that the JSE was actually weak-form efficient. Later studies on this exchange have supported this conclusion (for example, Magnusson and Wydick, 2002; Smith, Jefferis and Ryoo, 2002; Jefferis and Smith, 2005; Simons and Laryea, 2005) with the exception of Appiah-Kusi and Menyah (2003) and Smith (2008).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents research approach that was used in achieving at the study's objectives. It sets out the method that was used in collecting data and analyzing the same. The chapter is thus structured into: research design, population, data collection, data analysis and ethical considerations.

3.2 Research design

Kombo and Tromp (2006) define research design as the structure of research. This study adopted a quantitative research design. The study adopted a Quantitative comparative design. Quantitative researchers calculate measures of central tendency like mean and variability like standard deviation just as they do in descriptive research, but these measures alone do not provide evidence of significant differences or relationships among the variables under study (Cooper & Schindler, 2003). The quantitative comparative research design was selected because the study will seek to compare the performance of value and growth stocks performance over a period of time. This design is appropriate because the study will be using quantitative data. Further statistical procedures must be used to answer these questions.

3.3 Population and sample of the Study

The population comprised all the 56 listed companies at the NSE as of 31st December, 2011. Because the study applied secondary data and some of these are already available, the study included all the 56 companies in the analysis according to the trading sector.

3.4 Data collections methods

The study used secondary data on the Price Earnings Ratio and Price to book ratios for both the growth and value stocks. The data collected from the financial statements of the respective companies presented to the NSE. The data collected was relevant on the three study rations including: Price earnings ratio, market to book value ratio, price/cash flow ratio and dividend yield ratio. The data was public data as it was published in the websites of the relevant listed companies as well as at the NSE offices. The period of study for which data was obtained focuses on a five year period between 2007 and 2011.

3.5 Data analysis methods

The data analysis methods involved calculating financial ratios which include the

Price to earnings, price to book ratios, and dividend yield. The values gotten were used to determine which stocks are value stocks and which stocks are growth stocks.

The study employed computer software Statistical Package Version 21.0 to analyze the data. Given that the study model is a comparative one, the study used ratio computation technique in analyzing the performance of growth and value stocks at the NSE between 2007 and 2011. Specifically, the study computed the following three ratios for both the growth and value stocks: Price earnings ratio, market to book value ratio and dividend yield ratio. The study then compared the performance of growth and value stocks to reach a conclusion.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research objectives and methodology. The study findings are presented on the comparison of the performance of value and growth stocks at the Nairobi Securities Exchange (NSE), Kenya. The specific variables discussed in this chapter include Price to earnings, price to book ratios, and dividend yield.

4.2 Price earnings Ratio

The study collected data on the Price earnings ratio for the Companies quoted at the Nairobi Stock exchange in order to establish the Growth and Value stocks.

4.2.1 The Agricultural Sector

For the agricultural sector, the study computed the Price earnings ratio on a yearly basis for all the companies in this category. The companies here included Unilever Tea Kenya Ltd, Williamson Tea Kenya Ltd, Kapchorua Tea Co. Ltd, Kenya Orchards Ltd, Limuru Tea Co. Ltd, Kakuzi, Rea Vipingo Plantations Ltd, and Sasini Ltd. An analysis of the Price earnings ratio of firms in this segment shows a mixture of both growth and value stock characteristics. A look at the industry average also posts huge deviations in the price earnings ratio from one year to another showing that the segment experiences high fluctuations in the price earnings ratio. An analysis of the five year price earnings groups the following company stocks under value stocks due to their relatively low price

earnings: Williamson Tea Kenya Ltd, with a five year average at 0.87, Kenya Orchards Limited with price earnings only for the year 2011. Unilever Tea Kenya, Rea Vipingo Plantations Ltd, and Sasini Ltd because of their decelerating price earnings. On average, the firms in the Agriculture segment displays the characteristics of value stocks because of the generally low price earnings within the study period 2007-2011. These findings are well illustrated in the figure 4.1 below:

Figure 4.1: Price earnings ratio for the Agriculture sector
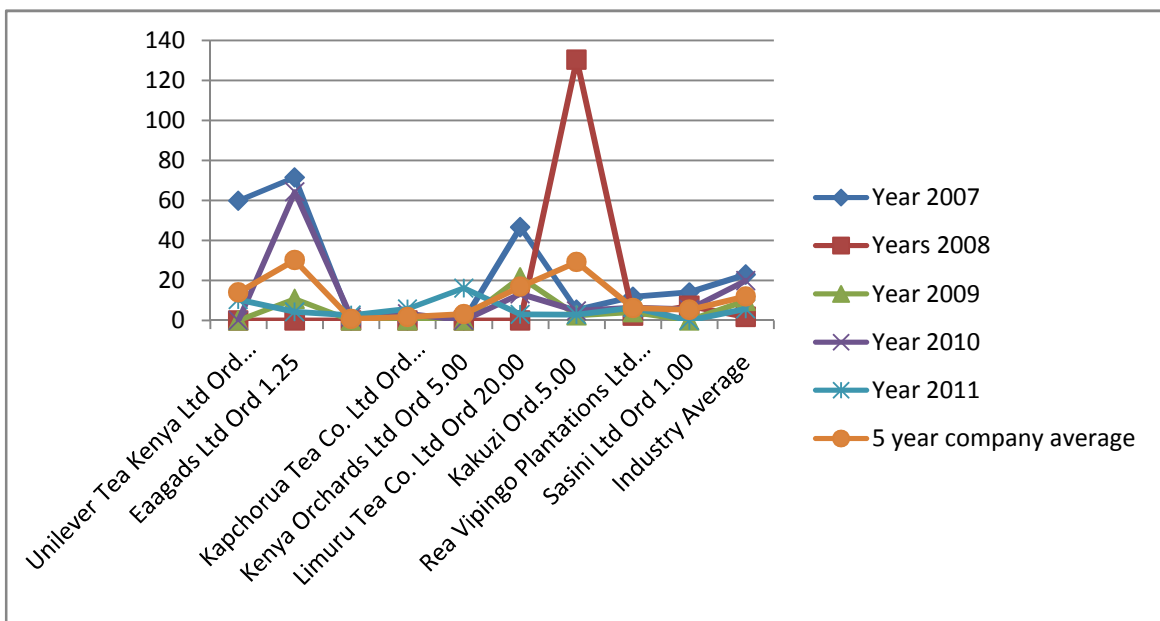
4.2.2 Commercial and Services Sector

The study also collected and computed the P/E ratios for the commercial and services sector for the period 2007/2011. To simplify the analysis, the study computed annual averages to see the effects of the different earning levels on the overall earnings of the companies. The value stocks in this segment included A. Baumann & Co. Ltd which only had a PE ratio of 1.0 in the year 2011, Hutchings Biemer which had a price earnings ratio of 6.25% in 2008 and then zero in 2009 and 2010. Growth stocks in this segment as

measured by the P/E ratio include: Access Kenya Group Ltd which has consistently had a price earnings ratio of more than 18.6. other growth stocks in this segment included Express Ltd, Nation Media Group, Car & General (K) Ltd, CMC Holdings Ltd, Kenya Airways Ltd, Scan group Ltd, Standard Group Ltd, TPS Eastern Africa and Uchumi Supermarket which all had somehow higher P/E ratios within the five years reviewed. These findings are well illustrated in the table 4.1 below

Table 4.1: Price Earnings Ratio for the Commercial and Services Segment

	P/E	P/E	P/E	P/E	P/E	Period Average
COMMERCIAL AND SERVICES	2007	2008	2009	2010	2011	
A.Baumann & Co.Ltd Ord 5.00	-		-	-	1.0	0.25
AccessKenya Group Ltd	36.33	-	20.45	21.12	18.6	19.29
Car & General (K) Ltd Ord 5.00	9.22	25.00	3.97	5.68	13.5	11.47
CMC Holdings Ltd Ord 0.50	20.58	5.61	6.92	12.90		11.50
Express Ltd Ord 5.00	13.10	15.09	4.33	57.67		22.55
Hutchings Biemer	-	6.25	-	-	5.9	2.43
Kenya Airways Ltd Ord 5.00	7.16	-	-	10.45	6.8	4.89
Marshalls (E.A.) Ltd Ord 5.00	12.54	3.41	7.40	-	7.7	6.20
Nation Media Group Ord. 5.00	29.69	9.18	13.33	20.52	9.0	16.35
Scangroup Ltd Ord 1.00	25.43	18.85	17.31	11.97	8.3	16.36
Standard Group Ltd Ord 5.00	62.64	10.29	13.55	31.77	5.4	24.73
TPS Eastern Africa (Serena) Ltd Ord 1.00	21.75	17.45	11.20	13.92	4.6	13.79
Uchumi Supermarkets	-	16.61	19.05	18.89	5.4	12.00
Industry Average	22.46	13.43	-	6.20	8.3	10.08

Source: (Research Data, 2012)

4.2.3 Finance and Investment Sector

In the finance and investment sector, the study also computed the price earnings ratio for the period 2007-2011. This segment was made up majorly growth investment as most of the organizations had an averagely higher price earnings ratio. A review of the annual average Price earnings showed that all organization had scored above 9%. The organizations in this segment all had opportunities for future growth and profitability

hence the qualification of growth status. The findings are well illustrated in the table 4.2 below:

Table 4.2: Price Earnings Ratio for the Finance and Investments Segment

FINANCE AND INVESTMENT	2007	2008	2009	2010	2011	Period Average
Barclays Bank Ltd Ord 2.00	23.94					23.94
City Trust Ltd Ord 5.00	18.20		10.43	13.33		13.99
C.F.C Bank Ltd ord.5.00	25.60	14.03	20.18	14.20	0.0	14.80
Diamond Trust Bank Kenya Ltd Ord 4.00	24.93	11.87	20.47	26.15	0.0	16.68
Equity Bank Ltd Ord 5.00	53.76	23.92	14.55	-	2.5	18.95
Housing Finance Co Ltd Ord 5.00	51.99	12.15	10.43	16.95	14.1	21.12
I.C.D.C Investments Co Ltd Ord 0.50	26.97	14.51	12.78	22.81	18.1	19.03
Jubilee Holdings Ltd Ord 5.00	14.52	25.58	29.07	25.00	8.4	20.52
Kenya Commercial Bank Ltd Ord 10.00	24.36	60.63	8.27	10.31	11.4	22.99
Kenya Re	20.18	8.97	10.56	14.12	4.7	11.71
National Bank of Kenya Ltd Ord 5.00	32.92	21.36	5.66	4.98	9.9	14.96
NIC Bank Ltd 0rd 5.00	11.28	10.54	6.01	9.60		9.36
Pan Africa Insurance Holdings Ltd 0rd 5.00	10.61	7.68	8.29	14.58		10.29
Standard Chartered Bank Ltd Ord 5.00	21.26	16.99	-	24.74	18.8	16.35

Source: (Research Data, 2012)

4.2.4 Industrial and allied Segment

The researcher also computed the price earnings ratio for the industrial and allied segment. From the data findings, majority of the firms in the sector also belonged to the growth stocks as they posted a high price earnings ratio and earnings increased from one year to another. For example, the five year averages are comparably higher if compared to other segments like the agriculture.

27

Table 4.3: Price Earnings Ratio for the Industrial and Allied Segment

Industrial and Allied	2007	2008	2009	2010	2011	Period Average
Athi River Mining Ord 5.00	33.70	18.39			8.8	20.30
BOC (K)	13.83				10.9	12.38
Bamburi Cement Ltd Ord 5.00	27.22		19.19	26.53		24.32
British American Tobacco Kenya Ltd Ord 10.00	11.57	21.24	14.62	17.77		16.30
Carbacid	13.69	11.75	17.77	10.64	9.0	12.58
Crown Berger Ltd 0rd 5.00	18.77	16.65	10.29	18.81	7.8	14.45
E.A.Cables Ltd Ord 0.50	30.00	9.45	4.64	15.91	4.8	12.96
E.A.Portland Cement Ltd Ord 5.00	16.49	9.31	20.21	8.86	4.9	11.96
East African Breweries Ltd Ord 2.00	18.05	14.22	10.31	13.16	6.6	12.47
Eveready East Africa Ltd Ord.1.00	10.09	14.19	3.93	-		7.05
Kenya Oil Co Ltd Ord 0.50	13.97	13.34	15.07	22.88		16.32
Kenya Power & Lighting Ltd Ord 20.00	9.99	15.08	38.82	20.00	3.3	17.44
KenGen Ltd. Ord. 2.50	25.00	41.18	5.70	11.01	2.4	17.07
Mumias Sugar Co. Ltd Ord 2.00	16.26	7.55	3.48	8.14	4.6	8.00
Olympia Capital Holdings ltd Ord 5.00	9.83	6.10	12.29	18.15	2.8	9.83
Sameer Africa Ltd Ord 5.00	-	7.24	6.52	9.10	3.4	5.26
Total Kenya Ltd Ord 5.00	12.14	8.54	-	-	3.3	4.80
Unga Group Ltd Ord 5.00	11.79	19.61	9.07	10.09		12.64
Industry Average	17.20	13.95	7.15	17.90		14.05
Grand Average & Total	22.08	10.70	5.61	5.55	3.4	9.47

Source: (Research Data, 2012)

4.3 Price to Book Ratios

The study collected data on the price to book ratios for the Companies quoted at the Nairobi Stock exchange in order to establish the Growth and Value stocks. Value investors look for some other indicators besides earnings growth. One of the metrics they look for is the Price to Book ratio or P/B. This measurement looks at the value the market

places on the book value of the company. Growth stocks usually have high price-to-earnings and price-to-book ratios. A lower Price-To-Book Ratio could mean that the stock is undervalued. But it could also mean that something is fundamentally wrong with the company. The analysis is arranged according to the market segmentations.

4.3.1 Main Investment Market Segment

The study computed the price earnings ratio for the Agricultural segment. From the research findings, the study established that based on the P/B, there were both value and growth stocks in the agricultural segment. The companies with consistently low P/B included Unilever Tea Kenya Ltd, Williamson Tea Kenya Ltd, Kenya Orchards Ltd and Sasini Limited. These companies had a consistently low P/B averaging less than 1% for the five years under study. The segment also had a few growth shares like Limuru Tea Company Limited, Eaagads Ltd and Kakuzi which recorded more than a P/B of more than 1.5%. These findings are well illustrated in the table 4.4 below.

Table 4.4: Price to Book Ratio

	P/B	P/B	P/B	P/B	P/B	Annual Average
Agricultural	2007	2008	2009	2010	2010	
Unilever Tea Kenya Ltd Ord 10.00	1.00				2.2	1.6
Eaagads Ltd Ord 1.25	2.05	0.83	1.67	3.93	0.6	1.8
Williamson Tea Kenya Ltd Ord 5.00	0.42	1.80	0.53	0.42	0.5	0.7
Kapchorua Tea Co. Ltd Ord Ord 5.00	0.50	0.20	0.54	0.57	3.6	1.1
Kenya Orchards Ltd Ord 5.00	4.43	0.43	22.74	(31.31)	1.2	-0.5
Limuru Tea Co. Ltd Ord 20.00	5.34	4.43	5.07	6.43	0.4	4.3
Kakuzi Ord.5.00	0.78	4.88	0.72	1.77	0.6	1.7
Rea Vipingo Plantations Ltd Ord 5.00	2.05	0.50	1.00	1.38	1.3	1.2
Sasini Ltd Ord 1.00	1.48	1.21	0.42	0.51	0.5	0.8
Industry Average	2.01	0.35	4.09	(2.04)	1.2	1.1

Source: (Research Data, 2012)

4.3.2 Commercial Services Segment

The study further collected data on the P/B ratio for the commercial and services segment. Like other segments, this segment too had value and growth stocks. Value stocks had a low P/B or a decreasing P/B ratio. Some of these included Hutchings Biemer, A. Baumann & Co. Ltd and Kenya Airways which recorded a less than 1 P/B ratio on average for the five years under study. The segment also had some growth stocks which showed potential of higher growth and better performance even in the future. Some of these included Access Kenya Group Ltd, Scangroup Ltd, Nation Media Group, TPS Eastern Africa (Serena) Ltd which posted a higher than P/B ratio of 3.3. These findings are well illustrated in the table 4.5 below

Table 4.5: Price to Book Ratio

Commercial And Services	2007	2008	2009	2010	2011	Average
A.Baumann & Co.Ltd Ord 5.00	0.52		0.29	0.29	0.4	0.4
AccessKenya Group Ltd	35.72	0.29	4.02	2.87	0.5	8.7
Car & General (K) Ltd Ord 5.00	1.73	5.04	0.75	0.85	0.7	1.8
CMC Holdings Ltd Ord 0.50	2.52	1.34	1.33	1.33		1.6
Express Ltd Ord 5.00	2.70	2.30	0.99	0.76		1.7
Hutchings Biemer	-	1.43	-	-	2.0	0.7
Kenya Airways Ltd Ord 5.00	1.70	-	0.92	1.06	0.5	0.8
Marshalls (E.A.) Ltd Ord 5.00	1.68	0.76	0.94	1.53	1.7	1.3
Nation Media Group Ord. 5.00	6.70	1.17	3.97	5.27	2.4	3.9
Scangroup Ltd Ord 1.00	10.04	5.37	3.52	2.91	0.7	4.5
Standard Group Ltd Ord 5.00	-	3.38	2.60	5.39	1.1	2.5
TPS Eastern Africa (Serena) Ltd Ord 1.00	2.03	7.06	3.99	2.63	0.5	3.3
Uchumi Supermarkets	-	4.62	0.77	2.63	1.2	1.8
Industry Average	2.96	1.51	1.85	2.12	2.2	2.1

Source: (Research Data, 2012)

4.3.3 Finance and Investment Segment

The study also computed the P/B for the finance and Investment Segment. On overall, this segment portrayed a somewhat vibrant activity and future chances of growing. Majority of the companies in this segment posted relatively higher P/B ratio as compared to those posted by the agriculture and commercial and services segments. Among the companies with a high P/B ratios were Barclays Bank Limited, Equity Bank Ltd, City Trust Ltd and I.C.D.C Investments Co Ltd. However, on general, the whole segment indicated growth stocks. These findings are well illustrated in the table 4.6 below.

Table 4.6: Price to Book Ratio

Finance and Investment	2007	2008	2009	2010	2011	Average
Barclays Bank Ltd Ord 2.00	7.22					7.2
City Trust Ltd Ord 5.00	3.41		2.88	3.37		3.2
C.F.C Bank Ltd ord.5.00	4.25	3.90	1.00	1.77	0.4	2.3
Diamond Trust Bank Kenya Ltd Ord 4.00	4.60	1.28	2.33	3.06	0.0	2.3
Equity Bank Ltd Ord 5.00	14.30	3.36	0.72	1.13	0.4	4.0
Housing Finance Co Ltd Ord 5.00	3.83	2.73	1.81	3.03	4.0	3.1
I.C.D.C Investments Co Ltd Ord 0.50	2.64	2.21	2.56	4.20	3.4	3.0
Jubilee Holdings Ltd Ord 5.00	3.65	4.37	1.08	1.44	1.4	2.4
Kenya Commercial Bank Ltd Ord 10.00	4.54	3.09	1.64	2.47	1.0	2.5
Kenya Re	1.65	2.11	2.10	2.81	0.8	1.9
National Bank of Kenya Ltd Ord 5.00	2.43	3.95	0.84	0.80	1.6	1.9
NIC Bank Ltd 0rd 5.00	1.61	1.05	1.20	1.36		1.3
Pan Africa Insurance Holdings Ltd 0rd 5.00	3.60	1.73	1.70	2.70		2.4
Standard Chartered Bank Ltd Ord 5.00	5.53	2.73	1.90	2.59	3.2	3.2
Industry Average	4.52	2.07	3.48	5.38	2.5	3.6

Source: (Research Data, 2012)

4.3.4 Industrial and Allied

The study also computed the price to book ratio for the industrial and Allied segment at the NSE. From the research findings displayed in the table 4.8 below, the study notes that this segment comprised of both growth and value stocks. Among the value stocks in this segment were Olympia Capital Holdings ltd, Sameer Africa Ltd, Total Kenya Ltd and Unga Group Ltd which all posted an average P/B of less than 1. The segment also had growth stocks including Athi River Mining, Bamburi Cement Ltd, E.A.Cables Ltd and Crown Berger Ltd among others. The growth stocks recorded a higher P/B ratio of up to 4.0. These findings are well illustrated in the table 4.7 below:

Table 4.7: Price to Book value

Industrial and Allied	2007	2008	2009	2010	2011	Average
Athi River Mining Ord 5.00	6.29	2.85			0.8	3.3
BOC (K)	2.46				1.7	2.1
Bamburi Cement Ltd Ord 5.00	5.47		5.57	4.15	0.8	4.0
British American Tobacco Kenya Ltd Ord 10.00	4.23	5.17	1.94	1.74	1.1	2.8
Carbacid	1.90	2.24	3.65	3.63	0.3	2.3
Crown Berger Ltd 0rd 5.00	1.55	4.21	3.58	5.95	1.1	3.3
E.A.Cables Ltd Ord 0.50	10.57	2.79	1.11	4.58	0.7	4.0
E.A.Portland Cement Ltd Ord 5.00	3.49	1.90	0.70	0.91	0.3	1.5
East African Breweries Ltd Ord 2.00	5.89	0.72	3.53	2.72	0.6	2.7
Eveready East Africa Ltd Ord.1.00	3.77	5.69	1.18	1.58	0.3	2.5
Kenya Oil Co Ltd Ord 0.50	2.50	1.78	5.25	6.87	1.9	3.7
Kenya Power & Lighting Ltd Ord 20.00	0.84	5.70	1.89	1.60	0.8	2.2
KenGen Ltd. Ord. 2.50	0.96	2.01	0.64	1.26	0.8	1.1
Mumias Sugar Co. Ltd Ord 2.00	2.72	1.95	0.42	1.05	1.5	1.5
Olympia Capital Holdings ltd Ord 5.00	1.18	0.45	0.40	0.56	0.4	0.6
Sameer Africa Ltd Ord 5.00	1.82	0.51	1.04	1.33	1.1	1.2
Total Kenya Ltd Ord 5.00	1.27	1.14	0.44	0.54	0.9	0.9
Unga Group Ltd Ord 5.00	0.44	0.73	0.64	0.70	1.3	0.8
Industry Average	3.19	0.85	0.99	0.57	0.9	1.3
Grand Average & Total	3.17	1.18	0.21	0.23	0.8	1.1

Source: (Research Data, 2012)

4.4 Dividend Yield

The study also collected the necessary data and computed the dividend yields for the four segments at the NSE. Dividend yield measures how much a company pays out in dividends each year relative to its share price. Companies that are paying large dividends compared to their stock price will produce high dividend yields. The dividend yield was calculated by dividing the annual dividend by the stock price. Dividend yield is used to calculate the earnings on investment (shares) considering only the returns in the form of total dividends declared by the company during the year.

4.4.1 Agricultural Sector

The data on the Agricultural sector was on the dividend yield to help compare the value and growth stocks based on this. In the agricultural sector, using dividend yield shows that there were a number of growth and value stocks in this sector. The value stocks included the Williamson Tea Kenya Ltd, Unilever Tea Kenya Ltd, and Sasini Limited that posted inconsistent results on the dividend yield value. The growth stocks in this segment included those with pretty higher dividend yields including Kapchorua Tea Co. Ltd, Rea Vipingo Plantations and Limuru Tea Co. Ltd. These findings are well indicated in the table 4.8 below:

Table 4.8: Dividend Yield ratio for the Agricultural sector

Agricultural	2007	2008	2009	2010	2011	Average
Unilever Tea Kenya Ltd Ord 10.00	3.13				3.38	3.25
Eaagads Ltd Ord 1.25	2.78	-	1.60	-	3.68	1.61
Williamson Tea Kenya Ltd Ord 5.00	0.45	-	2.92	3.74	7.00	2.82
Kapchorua Tea Co. Ltd Ord Ord 5.00	5.56	0.87	2.91	5.21	2.11	3.33
Kenya Orchards Ltd Ord 5.00	-	0.74	-	-	4.44	1.04
Limuru Tea Co. Ltd Ord 20.00	2.67	-	3.28	2.50	3.89	2.47
Kakuzi Ord.5.00	-	1.64	2.99	3.05	5.26	2.59
Rea Vipingo Plantations Ltd Ord 5.00	3.60	-	1.73	3.13	4.25	2.54
Sasini Ltd Ord 1.00	-	5.73	2.37	3.14		2.81
Industry Average	2.02	-	2.54	2.97		1.88

Source: (Research Data, 2012)

4.4.2 Commercial and Services Sector

The study further sought to compare the value and growth stocks in the commercial and services segment. Just like with the price earnings ratio and price to book value ratio, this sector played second last just a head of agriculture in terms of the returns. The sector too had both growth and value stocks. For the short term investors, they would invest in companies paying dividends while long term investors invest in companies ploughing

back the earnings. However, for a company to have a huge potential of growth in the future, it needs to post an increasing dividend yield year after another. The sector had its companies posting a dividend yield of between 1 and 4. This shows that the sector was poised for growth in the future.

Table 4.9: Dividend yield for the commercial and services sector

Commercial and Services	2007	2008	2009	2010	2011	Average
A. Baumann & Co. Ltd Ord 5.00	-		-	-	0.00	-
Access Kenya Group Ltd	0.22	-	1.98	1.87	0.00	0.81
Car & General (K) Ltd Ord 5.00	1.18	1.45	1.75	1.34	2.77	1.70
CMC Holdings Ltd Ord 0.50	1.25	1.52	4.09	2.92		2.45
Express Ltd Ord 5.00	-	1.81	5.56	-		2.46
Hutchings Biemer	-	3.85	-	-	11.83	3.13
Kenya Airways Ltd Ord 5.00	2.76	-	2.92	2.17	2.00	1.97
Marshalls (E.A.) Ltd Ord 5.00	2.56	6.14	4.60	-	1.79	3.77
Nation Media Group Ord. 5.00	3.68	3.70	4.58	3.48	4.60	4.01
Scangroup Ltd Ord 1.00	2.69	3.65	2.22	4.40	5.26	3.64
Standard Group Ltd Ord 5.00	-	1.39	2.52	0.87	8.33	2.62
TPS Eastern Africa (Serena) Ltd Ord 1.00	1.59	3.46	2.75	1.10	3.12	2.41
Uchumi Supermarkets	-	-	3.13	1.84	2.00	1.39
Industry Average	1.57	2.38	-	-	8.71	2.53

Source: (Research Data, 2012)

4.4.3 Finance and investment Segment

The data on the finance and Investment sector was as shown in the table 4.10 below. From the findings, the segment posted varying performances in the dividend yield ranging from an average low of 0.98 to an all time high of 3.3. This was the most well performing sector with many growth stocks. However, from the findings discussed above, it is clear that the companies in this sector majorly plough back the earnings as opposed to paying them out as dividends. For short term investors, these may not form a good investment but for long term investors, this may be the segment to invest in because it has a higher chance of adding on the shareholder value in the future.

Table 4.10: Dividend yield for the finance and Investment Segment

Finance and Investment	2007	2008	2009	2010	2011	Average
Barclays Bank Ltd Ord 2.00	2.09					2.09
City Trust Ltd Ord 5.00	2.07		4.68	4.17		3.64
C.F.C Bank Ltd ord.5.00	1.36	3.27	3.91	-	0.00	2.13
Diamond Trust Bank Kenya Ltd Ord 4.00	1.06	2.40	0.95	2.60	0.00	1.40
Equity Bank Ltd Ord 5.00	0.44	0.33	1.08	1.08	7.81	2.15
Housing Finance Co Ltd Ord 5.00	-	1.08	2.14	1.19	5.80	2.04
I.C.D.C Investments Co Ltd Ord 0.50	1.34	2.04	2.22	1.54	1.82	1.79
Jubilee Holdings Ltd Ord 5.00	1.22	1.14	0.44	0.44	1.75	1.00
Kenya Commercial Bank Ltd Ord 10.00	2.11	0.44	3.63	2.38	2.50	2.21
Kenya Re	1.47	3.46	5.01	4.60	0.00	2.91
National Bank of Kenya Ltd Ord 5.00	-	2.17	4.48	4.55	3.94	3.03
NIC Bank Ltd 0rd 5.00	4.32	2.75	-	-		1.77
Pan Africa Insurance Holdings Ltd 0rd 5.00	1.15	-	1.74	1.04		0.98
Standard Chartered Bank Ltd Ord 5.00	4.13	1.84	-	2.38	1.17	1.90
Industry Average	1.63	2.58	6.80	4.60	6.07	4.34

Source: (Research Data, 2012)

4.4.4 Industrial and Allied Segment

The study finally analyzed the data on the dividend yield for the industrial and allied segment. All companies in this segment paid out at least 2.51 times in terms of dividend. This shows that this segment is majorly comprised of the growth stocks because besides paying out dividends that are also able to take into account the investments to keep pace with the changes in the operating environment. These findings are well illustrated in the table 4.11 below:

Table 4.11: Dividend yield for the industrial and Allied segment

Industrial and Allied	2007	2008	2009	2010	2011	Average
Athi River Mining Ord 5.00	1.08	2.03			0.91	1.34
BOC (K)	7.06				4.69	5.88
Bamburi Cement Ltd Ord 5.00	2.81		1.28	-		2.04
British American Tobacco Kenya Ltd Ord 10.00	8.63	1.38	4.53	4.86		4.85
Carbacid	3.65	5.78	3.85	5.64	5.88	4.96
Crown Berger Ltd 0rd 5.00	2.97	3.64	9.71	5.31	5.59	5.44
E.A.Cables Ltd Ord 0.50	1.67	12.98	9.52	3.47	2.75	6.08
E.A.Portland Cement Ltd Ord 5.00	1.86	7.30	4.12	3.88	6.98	4.83
East African Breweries Ltd Ord 2.00	4.58	4.04	5.00	5.00	5.30	4.78
Eveready East Africa Ltd Ord.1.00	7.55	3.43	1.63	-		4.20
Kenya Oil Co Ltd Ord 0.50	1.30	-	5.88	3.87		2.76
Kenya Power & Lighting Ltd Ord 20.00	1.73	5.59	-	-	2.74	2.51
KenGen Ltd. Ord. 2.50	2.88	-	17.07	5.10	1.19	5.25
Mumias Sugar Co. Ltd Ord 2.00	10.14	2.73	5.63	2.10	3.25	4.77
Olympia Capital Holdings ltd Ord 5.00	-	2.94	4.33	2.04	4.93	2.85
Sameer Africa Ltd Ord 5.00	-	5.68	5.84	4.19	14.29	6.00
Total Kenya Ltd Ord 5.00	7.41	5.93	6.00	1.57	5.28	5.24
Unga Group Ltd Ord 5.00	-	3.60	-	8.70		3.07
Industry Average	3.63	-	8.70	3.45		3.94
Grand Average & Total	2.21	7.81	-	4.95	0.00	2.99

4.5 Classification of Stocks at the NSE

Based on the findings in the study above, the study categorized stocks into either value or growth depending on how they scored on the price earnings ratio, price to book value and the dividend yield. The findings were as shown on appendix 111.

From the table summary above, the study established that there were 40 growth stocks and 14 value stocks at the NSE. The assessment was made in relation to the three ratios in comparison to the industry performance and against the company itself over the study period. For the growth stocks, they exhibited high potential of growth and making more

returns for the investors within a short term as compared to the value stocks. The value

stocks on the other hand had low Price to earnings and price to book ratio. This was also

in comparison to both the industry and company performance over the study period

4.6 Significance Tests

The study conducted significance test to test the relevance of the above ratios in

explaining the value and growth stocks at the NSE. At 5% level of significance and 95%

level of confidence, P/E had a 0.188 level of significance; P/B had a 0.267 level of

significance, and Dividend yield had 0.045. The t critical at 5% level of significance at k

= 4 degrees of freedom is 2.245. Since all t calculated values were above 2.245 then all

the ratios were significant in explaining the relationship and classification of value and

growth stocks at the NSE.

Table 4.12: Significance and confidence level Tests

Measure	t	Sig.
Price Earnings Ratio	3.081	0.188
Price to book Value	2.578	0.267
Dividend yield	2.96	0.045

Source: Research data, 2012

CHAPTER FIVE:

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary of key data findings, conclusions drawn from the findings highlighted and policy recommendations that were made. The conclusions and recommendations drawn were on comparing the performance of value and growth stocks at the Nairobi Securities Exchange (NSE), Kenya.

5.2 Summary

From the findings discussed in chapter four, there are many value and growth stocks at the NSE. In making investments, investors in Kenya employ various strategies that will realize superior performance according to their judgment of the share performance or on how they are advised by their advisors. The agricultural segment was majorly comprised of growth stocks because they recorded a lower of earnings yields, book-market value, or dividend yield in the market within the five years under study. On the other hand, the Industrial and allied segment together with the finance and Investment segments posted a somewhat higher of earnings yields, book-market value or dividend yield. Growth stocks are those with a low of these ratios while value stocks show superior performance than growth. For the Nairobi Securities exchange, a consideration of all the three ratios applied in this study shows that the Agricultural segment is dominated by growth stocks because on comparison with either the company performance over a number of years or with the NSE market performance, their performances were low as shown by the low ratio figures.

The commercial services segment showed a reflection of middle ground where the performance was less average. The performance as measured by the three ratios was neither high nor low as compared to the other companies in other segments. This therefore portrayed a middle point for investors as it presented a hybrid of value and growth stocks.

However, the finance and investment segments each paid good dividends as indicated by the higher dividend yield ratios. The industrial and allied segments rivaled the finance and Investment segment in performance. Majority of the companies in these segments presented a value stocks with great potential of appreciation quickly. However, these strategies are only applicable on the assumption that investors are rational in their investment decision. However, this may not be the case at the NSE for most small scale investors who are influenced by other behavioural factors when making their investment decisions.

5.3 Conclusions

From the above summary and presentation of findings in chapter four, this study makes the following conclusions: First, the agricultural segment was majorly comprised of growth stocks as majority of the companies in this segment recorded a lower of all the three ratios used in this study including: earnings yields, book-market value and dividend yield in the market within the five years under study.

The study further concludes that the Industrial and allied segment together with the finance and Investment segments comprised of the value stocks because they all posted a somewhat higher of the three ratios used in the analysis. As indicated, growth stocks are

those with a low of these ratios while value stocks show superior performance than growth. From the data presentations, the value stocks posted low performance in terms of Price earnings, price to book ratios and dividend yield.

The study further concludes that the Nairobi Securities exchange, a consideration of all the three ratios applied in this study shows that the commercial and services sector provided a middle ground for the value and growth stocks because the stocks in this segment neither displayed high nor low of the three ratios used to facilitate the comparison the value and growth stocks at the NSE.

5.4 Policy Recommendations

From the summary of findings and conclusions above, the study makes the following recommendations: First, which the companies need to make their policies clear especially as regards the kind of investors they would like to attract. This will help them operate efficiently as they will not be compelled to please all the investors through adapting dividend payout policies which is offensive to some. This will also help the management of the companies in financial planning and budgeting.

The study further recommends that the Government of Kenya looks at ways of improving the performance of the agricultural segment especially for the firms listed at the NSE. These firms are neither paying high dividends nor offering a high price earnings ratio. This could mean that the government needs to review the taxation structure of the industry together with providing them with the necessary infrastructure to ensure optimum production and performance. This will in turn positively affect the economic growth of the country.

41

5.5 Limitations of the Study

A limitation for the purposes of this study was regarded as a factor that was present and contributed to the researcher getting either inadequate information or if otherwise the response given would have been totally different from what the researcher expected. The main limitations of this study included the fact that the data used was secondary data generated for other purposes. In addition, different companies used in this analysis applied different accounting principles which may have greatly affected the final figures used in this study.

Another limitation of the study included the fact that the data used was old and some information was difficult to get as the supposed organization where the data was stored only provided limited data via their websites thus forcing the researcher to adopt her study to the data so collected.

5.6 Suggestions for Further Studies

This study set to compare the performance of value and growth stocks at the Nairobi Securities Exchange (NSE), Kenya. This study considered three ratios including price earnings ratio, price to book value ratio and dividend yield. This study therefore recommends that another study be done to compare the value and growth stocks within the East African market especially considering the fact that many organizations have started cross listing their shares across the region.

The study further recommends that another study be conducted in Kenya on the relationship between Stock market performance and economic growth so as to establish

how the performance of the securities' market relates with the general level of economic

performance in Kenya

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Appendices

Appendix I: List of companies listed at the Nairobi Securities Exchange

Eaagads Ltd Ord 1.25
Williamson Tea Kenya Ltd Ord 5.00
Kapchorua Tea Co. Ltd Ord 5.00
Kenya Orchards Ltd Ord 5.00
Limuru Tea Co. Ltd Ord 20.00
Kakuzi Ord.5.00
Rea Vipingo Plantations Ltd Ord 5.00
Sasini Ltd Ord 1.00

A.Baumann & Co.Ltd Ord 5.00
AccessKenya Group Ltd
Car & General (K) Ltd Ord 5.00
CMC Holdings Ltd Ord 0.50
Express Ltd Ord 5.00
Hutchings Biemer
Kenya Airways Ltd Ord 5.00
Marshalls (E.A.) Ltd Ord 5.00
Nation Media Group Ord. 5.00
Scangroup Ltd Ord 1.00
Standard Group Ltd Ord 5.00
TPS Eastern Africa (Serena) Ltd Ord 1.00
Uchumi Supermarkets

Barclays Bank Ltd Ord 2.00
City Trust Ltd Ord 5.00
C.F.C Bank Ltd ord.5.00
Diamond Trust Bank Kenya Ltd Ord 4.00

Equity Bank Ltd Ord 5.00
Housing Finance Co Ltd Ord 5.00
Centum Investments Co Ltd Ord 0.50
Jubilee Holdings Ltd Ord 5.00
Kenya Commercial Bank Ltd Ord 10.00
Kenya Reinsurance
National Bank of Kenya Ltd Ord 5.00
NIC Bank Ltd 0rd 5.00

Pan Africa Insurance Holdings Ltd 0rd 5.00
Standard Chartered Bank Ltd Ord 5.00

Athi River Mining Ord 5.00
BOC (K)
Bamburi Cement Ltd Ord 5.00
British American Tobacco Kenya Ltd Ord 10.00
Carbacid
Crown Berger Ltd 0rd 5.00
E.A.Cables Ltd Ord 0.50
E.A.Portland Cement Ltd Ord 5.00
East African Breweries Ltd Ord 2.00
Eveready East Africa Ltd Ord.1.00
Kenya Oil Co Ltd Ord 0.50
Kenya Power & Lighting Ltd Ord 20.00
KenGen Ltd. Ord. 2.50
Mumias Sugar Co. Ltd Ord 2.00
Olympia Capital Holdings ltd Ord 5.00
Sameer Africa Ltd Ord 5.00
Total Kenya Ltd Ord 5.00
Unga Group Ltd Ord 5.00

Appendix II: Data on the Price Earnings Ratio for the Agricultural Segment

	P/E	P/E	P/E	P/E	P/E	Period Average
Agricultural	2007	2008	2009	2010	2011	
Unilever Tea Kenya Ltd Ord 10.00	59.81	-	-	-	10.4	14.04
Eaagads Ltd Ord 1.25	71.43	-	10.81	64.19	4.3	30.14
Williamson Tea Kenya Ltd Ord 5.00	-	-	-	1.73	2.6	0.87
Kapchorua Tea Co. Ltd Ord Ord 5.00	-	-	-	3.37	5.7	1.82
Kenya Orchards Ltd Ord 5.00	-	-	-	-	16.1	3.21
Limuru Tea Co. Ltd Ord 20.00	46.58	-	21.62	13.33	3.0	16.90
Kakuzi Ord.5.00	5.34	130.34	2.55	4.73	2.9	29.18
Rea Vipingo Plantations Ltd Ord 5.00	11.84	2.38	4.13	6.45	6.4	6.24
Sasini Ltd Ord 1.00	14.00	7.27	-	5.54	0.0	5.36
Industry Average	22.93	1.82	9.78	19.87	5.7	12.0

Source: (Research Data, 2012)

Appendix III: Data on the classification of Stocks into Growth and Value

Growth stocks	Value stocks
1. Eaagads Ltd Ord 1.25	1. Unilever Tea Kenya Ltd Ord 10.00
2. Limuru Tea Co. Ltd Ord 20.00	2. Williamson Tea Kenya Ltd Ord 5.00
3. Kakuzi Ord.5.00	3. Kapchorua Tea Co. Ltd Ord Ord 5.00
4. Rea Vipingo Plantations Ltd Ord 5.00	4. Kenya Orchards Ltd Ord 5.00
5. AccessKenya Group Ltd	5. Sasini Ltd Ord 1.00
6. Car & General (K) Ltd Ord 5.00	6. A.Baumann & Co.Ltd Ord 5.00
7. CMC Holdings Ltd Ord 0.50	7. Hutchings Biemer
8. Express Ltd Ord 5.00	8. Barclays Bank Ltd Ord 2.00
9. Kenya Airways Ltd Ord 5.00	9. City Trust Ltd Ord 5.00
10. Marshalls (E.A.) Ltd Ord 5.00	10. Athi River Mining Ord 5.00
11. Nation Media Group Ord. 5.00	11. BOC (K)
12. Scangroup Ltd Ord 1.00	12. Eveready East Africa Ltd Ord.1.00
13. Standard Group Ltd Ord 5.00	13. Sameer Africa Ltd Ord 5.00
14. TPS Eastern Africa (Serena) Ltd Ord 1.00	14. Total Kenya Ltd Ord 5.00
15. Uchumi Supermarkets	
16. C.F.C Bank Ltd ord.5.00	
17. Diamond Trust Bank Kenya Ltd Ord 4.00	
18. Equity Bank Ltd Ord 5.00	
19. Housing Finance Co Ltd Ord 5.00	
20. Centum Investments Co Ltd Ord 0.50	
21. Jubilee Holdings Ltd Ord 5.00	
22. Kenya Commercial Bank Ltd Ord 10.00	
23. Kenya Re	
24. National Bank of Kenya Ltd Ord 5.00	
25. NIC Bank Ltd 0rd 5.00	
26. Pan Africa Insurance Holdings Ltd 0rd 5.00	
27. Standard Chartered Bank Ltd Ord 5.00	
28. Bamburi Cement Ltd Ord 5.00	
29. British American Tobacco Kenya Ltd	
30. Carbacid	

31. Crown Berger Ltd 0rd 5.00 32. E.A.Cables Ltd Ord 0.50 33. E.A.Portland Cement Ltd Ord 5.00 34. East African Breweries Ltd Ord 2.00 35. Kenya Oil Co Ltd Ord 0.50 36. Kenya Power & Lighting Ltd Ord 20.00 37. KenGen Ltd. Ord. 2.50 38. Mumias Sugar Co. Ltd Ord 2.00 39. Olympia Capital Holdings ltd Ord 5.00 40. Unga Group Ltd Ord 5.00	