AN ANALYSIS OF THE LONG-RUN PERFORMANCE OF INTIAL PUBLIC OFFERS AND EFFECTS IN THE KENYAN STOCK MARKET

BY

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DECLARATION

This research proposal is my own original work and has never been presented for a degree at any other university for examination.

Signature……. Date……..

Sarah Kinya Mburugu

D63/67013/2013

This research project has been submitted for examinations with my approval as university supervisor

Signed…… Date……

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DEDICATION

This study is dedicated to my loving husband Gino Waireri and son Ian Waireri. Your boundless love and sacrifices have brought me this far. I am genuinely indebted and grateful to you two.

I would also dedicate this study to my parents, Wilson Mburugu and Mary Mburugu. The virtues you taught me have helped me particularly in my academic pursuit and my life in general.

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I also extend my gratitude to the following; the staff of the Nairobi Securities Exchange and my colleagues at Dyer and Blair Investment Bank Limited. Your assistance provided the useful information that guided the formulation and completion of my project work. Lastly, I am grateful to my friend Justine Obiero and my colleagues Muthoni Kinuthia and Kevin Sewe, for their wonderful collaboration through everyday discussions and deliberations throughout the study period.

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LIST OF ABBREVIATIONS

BHAR	Buy and Hold Abnormal Returns
BRITAM	British American Investment Company Limited
CMA	Capital Markets authority
EMH	Efficient Market Hypothesis
FTSE	Financial Times Security Exchange
IPO	Initial Public Offering
NSE	Nairobi Securities Exchange

ABSTRACT

IPO is when a private firm offers or sells its stocks to the general public. It involves a process where entities or firms resolve to modification from a private entity or firm to a public entity. The pricing behavior of IPOs has been one of the great mysteries of modern corporate finance. The general objective of the study was to investigate the long-run performance of Initial Public Offerings (IPOs) and effects in the Kenyan stock market. NSE is presently the sole exchange in Kenya with 64 listed companies in 2016. It is also among the most vibrant in Africa and the leading in Eastern Africa. The study used descriptive survey research design. The target population for the study was 64 listed companies. Six companies which issued IPOs between 2007-2014 where considered from the population. Data used was purely secondary data from the NSE website and individual company websites. Collected data was analyzed using Mean Adjustment Buy Hold Returns and Cumulative Abnormal Returns and a test of significance at 95% confidence level. The results were presented in form of tables and figures for ease of understanding. The finding indicated that using MABHR methodology IPOs over performed the market by 0.17%. Co-Operative Bank Ltd, BRITAM and Home Afrika over performed the market by 0.20% 0.40% and 1.12% respectively for the long-run. Access Kenya Group, Kenya RE and Safaricom underperformed the market in 60 months of trading by -0.13%, -0.14%, and -0.44% respectively. Using CAR methodology IPOs underperformed the market by 0.49%. Access Kenya and Co-Operative Bank Ltd overperformed the market by 0.61% and 1.04% respectively for the 60 months of trading. Kenya Re, Safaricom, BRITAM and Home Afrika underperformed the market in the long-run by -0.33%, -1.41%, -1.09 and -1.76% respectively. The MABHR t-test results show that there was a significant difference between the short-run and long-run of Co-operative and Home Afrika and insignificant MABHR t-test between the short-run and the long-run of Access Kenya, Safaricom, Britam and Kenya Re. Further, CAR t-test results show that there was a significant difference between the short-run and long-run of Access Kenya, Kenya Re and Britam and insignificant CAR t-test results between the short-run and the long-run of Co-operative Bank, Safaricom and Home Afrika. The study recommended implementation of policies by the NSE management so as to have improved performance of IPOs in the long-run. In particular, it recommended enactment of policies regulating the number of shares being issued by firms and the subscription levels of the IPOs as these were found to have and inverse relationship with IPO performance in the long-run. It also recommends that companies put in place strategies to ensure continued performance of their shares in the long-run even as they expand.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Initial Public Offerings (IPOs) are one of the most captivating and studied proceedings in the world of finance, and the pricing behavior of IPOs has been one of the great mysteries of modern corporate finance (Rajagopalan, 2013). Braun and Larrain (2007) assert that characteristically, IPOs are the chief focus, more so if they are listed alone, they can rouse the whole market. They further add that IPOs cannot be disregarded in emerging markets. Maksimovic and Pichler (2001) suggest in their study that an IPO can escalate media publicity.

Horne & Parker (1967) assert that IPOs first trading is so inconsistent, that it is not possible to analyze the trend of stock performance. Further, IPOs are predictable and thus giving no particular entity the benefit of abnormal strategy. Fama (1965) in ratifying the efficient markets hypothesis affirms that IPOs and stock matters are established by markets that are efficient and cannot thus have instances of abnormal returns. Nevertheless, Tsangarakis (2004) presents a deviancy of the IPO prices from projected figures thus revealing that the markets are inefficient whereas evidence of abnormal returns is inevitable.

1.1.1 Long-Run Performance of Initial Public Offers

Initial Public Offer is the first sale of stock by a private firm to the public. It involves a process where companies resolve to modification from a private company to a public company and in that process, sell the stocks in the firm (Edmonston, 2009). An entity that desires to initiate an IPO in Kenya has to first obtain the authorization from Capital

Markets Authority (CMA) before it can carry out an IPO. Before CMA considers an IPO proposal from any entity, the entity must first comply with the legal requirements (Bante, 2010).

An IPO is the first sale of an entity's (mostly a private firm or company) stocks to general public or other investors who are not the primary entity owners and letting the stocks trade in public market (Brigham & Ehrhardt, 2005). The primary reason why many companies consider a public equity issue is in order to seek additional funds for growth and expansion purposes. In most cases if external sources are not used, the ability of the firm to grow will be constrained.

Additional motives for a company going public include: gaining publicity, status and employee ownership (Grundvall, Jakobsson, & Thorell, 2004; Kim & Weisbach, 2005). Other secondary reasons include gain liquidity in terms of access to additional equity finance in the future via secondary issue, restructure their balance sheet, help shareholders unlock the value of share (price discovery) or unlock the potential value of the company and as an exit strategy for founders and other shareholders of the company.

Various studies have examined IPOs performance. The studies have mostly examined returns on stocks and operating performance immediately an entity goes public. Several studies have indicated that entities or firms which carry out IPOs report less profits compared to those entities or firms are yet to go public (Al-Barrak, 2005). One of the typical and practical methods to measure success of any IPO which eschew a goal of a huge first day leap in share price is viewed as more invaluable metric since it takes into account an entities' longer-term competitiveness and degree to which existing and new shareholders are fairly compensated (Loita Capital Partners International, 2013).

1.1.2 Effects of Initial Public Offerings on Stock Prices

Ritter (1998) defines stock price as the cost of purchasing a stock on an exchange hence denoting, stock price performance to the behavior exhibited by stock price. According to Latham and Braun (2010), the indistinctness associated with the performance financial fix has generated the decrease of IPO profits from what is usually considered average. The costs which are associated with IPO average approximately 7%-14% of gross proceeds and eminent failure can lead to IPO withdrawal (Latham and Braun, 2010). Warner, et.al (1987) state that apart from IPOs, stock prices may also be affected by current economic conditions and popularity of the company.

Georgen, Khurshed and Mudambi (2007) examined long-run underperformance of IPOs in UK found out that, since small companies operate differently compared to large companies, they usually a lot in terms of long-run performance compared to large companies. Nonetheless, a study carried out Alvarez and Gonzalez (2001) on IPOs long-run performance in Spanish Capital Market found out that long-run underperformance is erroneous and cannot be purported to exist.

1.1.3 Long-Run Performance of IPOs and Effects on Stock Prices

The relationship between IPO performance and stock prices performance was examined by Durukan and Yerleskesi (2002). It was concluded from their long-term regression equations that in long-run, big firms which have low ownership retention tend to offer low returns. Agarwal, Chunlin and Ghon (2003) did a study on the Hong Kong stock market for IPOs within 1993-1997. They stated that investor’s demand for IPOs is certainly linked to the initial returns of these companies. They further established that

there is a solid link concerning investor demand for IPOs and long-run post-issue performance of IPOs.

Kahneman and Tversky (1979) in the prospects theory affirm that people usually make their decisions depending on the level of loss they are likely to suffer from and the gains they are likely to get rather than the final outcome. Ma & Shen (2003) submitted a different description for the long-run underperformance of IPO stocks. They assumed that a decision maker's initial estimation principles are reflected in the mean of indicative price range reported by the issuing firm's IPO statement of registration.

1.1.4 The Nairobi Securities Exchange (NSE)

NSE is currently the sole securities exchange in Kenya with 64 listed companies in 2016. It is also among the most vibrant in Africa and the leading in Eastern Africa. However, NSE is a relatively small market compared to other exchanges in United States and United Kingdom which have more than 5000 and 2000 listed companies respectively. NSE was initially registered as a private company in the year 1991 when trading was through an open outcry system. This trading platform was later replaced by the central depository system that was commissioned in 2004.

According to the NSE website, its market capitalization has tremendously improved hitting Kshs. 1930.58 billion as of September 2016. Turnover at the NSE increased phenomenally from Kshs. 2.90 billion in the year 2002 to Kshs. 95 billion in the year 2006. The number of CDSC accounts that were opened increased from 80,000 in the year 2005 to over 1,000,000 investors as of October 2016 (www.nse.co.ke).

There are 2 indices that are used in the measurement of the performance at NSE. NSE 20 share index is a yardstick that is used to track the top 20 listed companies in Kenya. Although it is widely watched and cited, it comprises only 20 large companies and thus cannot gauge fluctuations in smaller companies. The Nairobi Securities Exchange all share index (NASI) is used to measure Market Capitalization other than the movements in the price of few selected counters. NSE has experienced considerable growth with more companies listing oversubscribed Initial Public Offerings. NSE is, therefore, the best performing top ranked equity market in Africa (Olweny, 2012). The NSE has also modernized its operations to include automation of trading, diversification of listed securities, dematerialization of stocks and development of regulatory and supervisory frameworks (Ayako, Kungu & Githui, 2015).

Firms listed on NSE are classified into different sectors such as; Agricultural, Banking, Insurance, Investment and Investment services, Allied and Construction, Commercial and Service, Energy and Petroleum, Automobiles and Accessories, Manufacturing, Telecommunication and Technology and Real Estate Sector (NSE, 2016). As at October 2016, NSE had 64 listed companies in the different sectors. Financial firms at the NSE comprise of commercial banks and insurance firms, which provide financial intermediation functions while the Non-financial firms are those companies that are not involved in the provision of financial intermediary services. Financial services companies are excluded since they are the companies that provide leverage and other debt services to the non-financial firms. The NSE is at the time one of the most promising and attractive markets in Africa by which the bulwark of investors want to invest and benefit more especially due to a conducive economic environment (Muiruri, 2014).

According to Chelgut (2008), NSE has had few IPOs compared to developed markets. The IPOs have been highly over-subscribed with Barclays bank of Kenya detailing an excessive of 613%, Eveready at over 800%, and Safaricom the biggest offer in the region at 382%. In all the oversubscribed offers, so much money was left "on the table" and these results into hefty refunds to subscribers. On 16thJuly 2015, the NSE registered the Settlement Guarantee Fund (SGF)–a fund established to strengthen the financial integrity of the derivatives market and to ensure settlement of transactions in the remote case of default by a clearing member. On the same date, the NSE set up the Investor Protection Fund (IPF) – a fund created to satisfy potential claims of clients against trading members should adverse events occur (NSE, 2015).

1.2 Research Problem

It has been observed that the moment a company is listed on the securities exchange, there follows the first day underpricing followed by long-term period of underperformance in terms of pricing. Consequently, there has been considerable curiosity from stakeholders, investors, and academics to comprehend the assessments of why companies go public and the performance in the short and long-run of newly issued stocks. According to Rock and Ritter (1986), underpricing is important since it is used to persuade uninformed investors to take part in IPO offering while faced with an adverse selection from informed investors. This often leads to first-day price not reflecting a fair value of the IPO.

With regards to the IPOs focuses in Kenya, a number of studies have been done, such as Kanja (2013) the effect of IPOs on stock returns of firms listed at NSE, Wachira (2010) on determinants of success of IPOs among listed firms, Chelgut (2008) on investor's

demand for IPOs and 1st day performance and Simiyu (2008) on pricing and performance of IPOs. Many of these studies focused on IPO performance of firms listed at NSE. Leshore (2008) studied on medium-term performance of IPOs, whereas this study will be focusing on performance and long run effects of IPOs in the Kenyan market.

Mostly, the studies done so far determined a long-run underperformance. IPOs at NSE presented noteworthy excess returns in the three years following the offer, with highest returns on the first year and a decrease in second and third year, then estimated the market drive thereafter. The research analyzed the effects and long-run performance of IPOS in the first five years of trading to establish whether the study results are similar to those done on the long-run performance of IPOs both locally and internationally. The monthly long-run studies for five years have not been conducted in Kenya's NSE hence formed the research gap for the study. Furthermore, because the study variations that had been done in the past and the information asymmetry, the study attempted to show whether the factors stated in the various studies were indeed the long-run effects of IPO performance. The study therefore sought to answer the following research questions. What determines performance of an IPO in the Kenyan Market? What was the effect of IPOs over the past five years in the Kenyan stock market?

1.3. Objectives of the Study

The objective of the study was to determine long-run performance of IPOs and effects in the Kenyan stock market.

1.4. Value of the Study

The findings of this study will be important to investors as it will present guiding principles to investors to heighten their understanding of the performance of IPOs in Kenya and thus aid them in making viable decisions while investing in the stock market.

Furthermore, companies that intend to become public will be able to make viable decisions when setting the offer price of shares during IPOs.

Other developing capital markets in the region will also benefit from the study findings as it will provide insights that they could apply for the improvement of their capital markets. The information obtained would be useful to future researchers who want to advance the knowledge and literature in the market values after IPO's. It will also add to the literature on the subject as reference material and stimulate further research in the area.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This section offers detailed evaluation of the pertinent literature on the doctrines needed to find responses that link to the study question. It covers the theoretical perceptions with respects to the phenomenon of long-run performance of Initial Public Offers. Further, this chapter also reviews extant empirical studies that have a focus on the local scenario as regards IPO performance.

2.2. Theoretical Foundation

Various theories were proposed to elucidate the environment of the long-run performance of IPOs.

2.2.1. Efficient Market Hypothesis

Eugene F. Fama (1965) asserted in his study, that in a liquid market, security prices reveal all available information. Therefore, in an effectual market, rivalry amongst the numerous intellectual participants' hints to a condition where prices of individual securities already reproduce all available information.

Dyckman and Morse (2006) articulates that a security marketplace is largely described as effectual on condition that the value of the security transacted in the marketplace action as though they fully mirror the accessible information. Some of these charges respond immediately, or just about in a fair fashion to the new information. Shostak (1997) however, discredits the EMH belief that all market participants have the same expectations of future security prices as this will kill trade, and its implication that buy

and hold strategy is as good as any other trading strategy gives no scope for entrepreneurial trading.

The theory therefore suggests that essential and technical security analysis is not sensible hence, supporting a passive portfolio management (Seneque, 1979). Construing that, in an effectual marketplace at any time, the real value of a security will be a good approximation of its essential value. Thus for this study, the theory suggests that the performance of an initial price offer will influence the stock price in the market at any time and for the reason that there is information asymmetry.

2.2.2. Random Walk Concept

The unsystematic walk concept, which is constant with the effectual marketplace theory, is a monetary concept explaining that the price of the stock in the market develops according to unsystematic walk and hence it is not possible to predict (Fama, 1965). Though improbability regarding inherent value will remain, real prices of securities will meander haphazardly around the inherent value. Horne and Parker (1967) asserted that a practical dealer who depends exclusively on past price tendencies to forecast forthcoming price variations cannot get greater profits compared to the ones who purchase and hold. Differing to studies that support random walk hypothesis, Lo, Andrew, Mcckinlay and Craig (2002) presented a study and tests supporting the existence of trends in the stock markets and those stock markets are somewhat predictable. The theory, therefore, suggests that, numerically, stock price variations are self-regulating over a specific time. For investors, economists and financial theorists, technical or charting trading rules will not result in average profit that is greater than that obtainable with a simple buy and hold strategy (Horne and Parker, 1967). Relative to our study, the theory supposes that

performance of IPOs affects stock prices but not the variations of the stock exchange in the long run operations.

2.2.3. Prospects Theory

Kahneman and Tversky (1979) established the prospect theory. They explained that individuals make choices founded on the possible value of gains and losses instead of the final result and that the investor assesses these gains and losses using certain heuristics. Ma and Shen (2003) submitted a diverse illustration for the long-run deficit of IPO shares using prospect concept. Concerning this concept, indeterminate effects enter a stockholder's value function through a nonlinear alteration of their likelihoods. Minor prospect measures are given additional weight than in predictable value concept, while large as well as median possibility events are given less mass. The stocks of IPOs have risky constructive earnings, therefore, they are treasured more in prospects concept than in anticipated utility concept. They tested the principle with Ritter (1991) IPO sample.

Loughran and Ritter (2002) adopted the developmental perception in their elaboration of a viewpoint concept model of contentment about banks ‘leaving cash on the table’ among decision makers at companies convoluted in IPOs. They assumed that the managers original estimation principles are reproduced in analytic price array stated in the supplying company’s IPO registering statement. Ljungqvist and Wilhelm (2003) also derived a developmental measure of the IPO manager’s satisfaction with the supporter’s performance based on Loughran and Ritter (2002) possibility theory of IPO understating. They assessed the credibility of this measure by studying its power to explain the decision maker's subsequent choices. This endeavors towards describing the act of IPOs in the short run as well as long run.

2.2.4. Winners Theory

This model is created on a parallel irregularity of information, which exists between dissimilar groups of stockholders (Rock, 1986). In this model, Rock relates the idea of the winner's swearword to the new matters marketplace. For that reason, the mutual clarification for the abnormal first-day price conduct is the "winner's theory in which company than the others. In this ideal, the correct rate of the IPO segment, 'v', is unidentified. The issuer pre-chooses a proposal price 'p' and a proposal amount, 'Z'. There are 2 situations of the world, i.e., $p < v$ (underpricing) and $p > v$ (overpricing). Peng (2005) notes that the most cited in IPO underprice literature is the result of winner's curse. Peng notes that the Rock (1986) model, winner's curse is considered to be an application of Akelof (1970) lemon problematic. It explained that the initial public offer market consists of 2 groups of stockholders: the knowledgeable stockholders who have the greater information on the correct value of the stocks as well as unfamiliar stockholders, who do not have superior information to appropriately value the issue.

Due to this information irregularity, knowledgeable stockholders are conversant about the forthcoming forecasts of the stocks being offered and will only try to purchase when the subject is understated. Ignorant stockholders, on the contrary, do not understand which subjects are understated or high-priced and hence do not differentiate amid issues when they apply for IPOs.

2.3. Determinants of Stock Price Performance

Different issues-specific, company-specific and market precise features have been found to contribute the initial return of the IPOs, which brings about issues such as underpricing. The size of the offer, size of the firm, age and subscription rate of the IPO,

are amongst the issues. However, given differences in capital markets across countries, there is a need to determine whether the above variables are indeed the ways of IPOs performance in Kenya.

2.3.1. Size of Offer

The size of the offer is measured by multiplying the offer price and number of stocks issued. M'Kombe and Ward (2002) in their research on South African IPOs presented that offer size has an extensive negative effect on the extent of underpricing. This is because low shares, according to their research are viewed as a high risk. A study by Kiran and Phil (2011) determined a progressive link between the size of an IPO and the price of the stock. On the contrary, Zaluki and Kect (2012) found an adverse association amid the size of an IPO as well as the price of the stock. Meggison and Weiss (1991) concluded that the size of the offer is inversely proportional to the scale of underpricing. They argued in their study that the size of the issue and underpricing of IPOs are linked to substitution for disproportionate statistics.

2.3.2 Size of Firm

Osei, Adjasi and Fiawoyife (2012) studied size of the firm as a variable that affects IPO underpricing in Ghana and Nigeria over 1990 and 2006. Resulting from the regular empirics in explaining opening irregular returns in IPOs they assessed multiple regression models and found that cheapening is definitely linked to firm size. According to Dalton (2003), the magnitude of the IPO companies has significant inference for valuing as it is a significant factor of stability of the company. Yong (2011) did a study on Malaysian IPOs and found that initial return was driven by the size of the firm. His study examined a sample of 277 Malaysian IPOs from the year 2004 to December 2010 and found that

the size of the firm was a determinant of IPO performance. The result specified that the typical original yield of IPOs listed on the Malaysian alternative stock market are greatly advanced than those IPOs registered on the Kenyan market.

2.3.3. Subscription Rate

Subscription level of IPOs represents the total demand of the issue generated in the stock market. The demand of the IPO is measured by the subscription rate. It is calculated by dividing total demand of the issue by total offer size. Cheluget (2008) found that there is an affirmative connection between investor demand and first-day performance. From their study Kiran and Phil (2011) assert that there is a constructive association between subscription level and raw returns of IPOs. Bansal and Khanna (2012) did a study to measure the relationship between subscription and underpricing and found an assured connection. The degree of pricing depends on statistics heterogeneity among investors which upsurges with the demand for the company's shares (Rock, 1986). This was supported by Booth and Chua (1996) as they established a positive relation between underpricing and oversubscription.

2.3.4. Age of the Firm

According to Carter, Dark and Singh (1998) the age of the firm was paramount in explaining the performance of IPOs after studying 2,292 IPOs issued in the US between 1979 and 1991. They established that oldest companies have longer working histories and face less uncertainty. This conclusion suggested that older companies have a lower chance of information asymmetry than newer businesses, thus affecting the price and performance of their IPOs. Ritter (1998) resonated on the same and contended that newer companies have shorter operating history and are a subject to a great deal of uncertainty.

2.2.5. Investor Sentiment

According to a study by Baker and Wurgler (2007), investor sentiment is a certainty in view of forthcoming cash flow and investment risks that are not substantiated by present probabilities. Behavioral finance literature point to the fact that trade clatter is the cause of investor sentiments thus making them suffer psychological bias whereas rational expectation theory cannot explain their trading behavior. According to Cornelli (2005), behavioral biases have become increasingly prominent in explaining asset pricing that is inconsistent with a justified decision making structure. Ljungqvist (2006) contended that investors are eager to pay a premium in excess of their belief if sentiment is biased towards newly listed counters. Needless optimism pushes asset values above the first principles (Brown and Cliff, 2005).

2.4. Empirical Studies

Njoroge (2004) analyzed the initial and long-run performance of IPOs for companies listed on the Nairobi Securities Exchange during the period 1984-2001. From a sample of 14 IPOs, he observed that all the IPOs recorded an overall negative cumulative growth of -68.46%. Wachira (2012) in his study to evaluate the short-run performance of the IPOs at the NSE found out that 75% of the eight companies in his study had their relative value above those of related companies within the same sector, thirty days after issuing an IPO. The study considered eight Kenyan companies that had issued their IPOs between 2005 and 2011. He used the market to book ratios and market capitalization measures to come up with conclusive evidence, a deviation from most of the studies on IPO performance. The findings concluded that IPOs produced noteworthy initial excess returns, an indicator

that within the short-run; the company will attract funding for further growth and instill confidence to the current and prospective investors.

Carter, Dark, and Singh (1988) analyzed 2,292 IPOs issued in the US between 1979 and 1991. Regression Analysis found that the age of the firm was significant in explaining underpricing. They concluded that older firms have long histories of operations and face a lower degree of uncertainty. This conclusion implied that older firms have a low information asymmetry degree than younger firms, leading to less underpricing of their IPOs.

Prices drop at issue announcement and increase with time from the last information release. Intraday price data was used to determine announcement effects on new equity issues. The size of an Issue, the intended use of sale proceeds and the estimated profits of a new investment are not correlated with the announcement effect as observed by (Michael & Robert, 1988).

A study by Loughran and Ritter (2002) which looked at 3,025 new issues from 1990 - 1998 in the U.S also found that on average, an IPO gained by 14.1% on its first trading day leading to $27 billion being left on the table by issuing companies. They defined "money being left on the table" as "the day one price gain which is multiplied by a number of stocks that were sold. If stocks were sold at opening day's closing price in the market other than the offer price, the offering proceeds would have been higher by an amount equal to the amount "left on table". They were puzzled by the fact that issuers rarely complain about "leaving money on the table" since it was equivalent to selling a company's stock at a fraction of its value (Loughran, 2002).

Cheluget (2008) found the first-day gains to be 40.28%. The study looked at IPOs that took place between 1984 and 2008. Later, Swanya (2014) analyzed IPOs that took place between 2006 and September 2014 and found that the average first-day gains of the IPOs was 67.67%. The difference in their findings can be attributed to the use of samples of different sizes and with different variable characteristics resultant from the study of IPOs issued during those periods.

Ochege (2011) sampled 15 Kenyan IPOs for the period 1990-2008 and found out that average initial market attuned returns for the first 3 days of listing is around 64.3% indicating a significant level of underpricing. Statistical analysis also indicated that the IPO underpricing level in Kenya is more related to listing delays, offer size, offer price, oversubscription rate and the type of issuer.

Kipngetich, Kibet, Guy, and Kipkoskey (2011) examined determinants of IPO pricing in Kenya. They examined the extent to which investor sentiment, post-IPO ownership retention, size of the firm, firm's age and board prestige affect IPO pricing of listed firms at NSE. Secondary data was used and analyzed by multiple regression analysis and presented using descriptive statistics. Average under-pricing of 49.44 percent was observed for the period under study and all the variables tested were found not to significantly influence IPO offer price at 5 percent level of significance. The study concluded that public information disclosed in the prospectus was insignificantly mirrored in IPO offer prices and that rational theory cannot explain the effect of investor sentiment in IPO market in Kenya given that investor sentiment and board prestige were negatively related to IPO offer price. Further research is needed on the role of regulatory authorities, especially with regards to disclosure requirements; in protecting potential

investors as the publicly available information provided in the prospectus may not reflect all pertinent facts to inform sound investment decisions.

Kiluku (2013) carried a study to establish a correlation between the offer price and post-offer price of listed State-Owned Enterprises at the NSE. The results revealed there exists a strong relationship between the offer price and first day post-offer price. In addition, the results showed that IPO share price is positively correlated with first-day price at (0.974) with a significance level of 0.0110. This shows that lower IPO share prices have a lower post listing market prices and degrees of underpricing and vice versa. A significant level 0.0110 showed that first-day price of a share price significantly affects the performance of a share. (0.9485) shows that 94.85% is explained by the model with a lower standard error of estimate of 3.869. The significance value of 0.0110 is less than 0.05 and therefore shows that IPO share price affects post listing market price.

Kanja (2013) conducted a study to determine effects of IPOs on share returns of firms listed on the NSE. The results indicate that an initial public offer affect stock returns of companies listed on the NSE and that the median return is less than (equal weighted) average return signifying that distribution of initial returns is skewed to right, as expected. Over the entire sample, the equal-weighted average initial return exceeds the value weighted average by a factor of 1.75, which suggests that IPO offer is a vital determinant of initial return. Odongo (2012) carried out a study to determine the relationship between IPO mispricing and long-run performance of companies listed on NSE. The study was based on a population of 58 companies listed on NSE and a sample of twelve companies listed in 1996 to 2012 was considered.

2.5. Summary of Literature Review

Most of the previous researches regarding IPOs have described variances in performance of IPOs by looking at dissimilar structures of the contributions. For instance, they report variances in underpricing by proposing type, nations, industry type, to name a few. Literature on underpricing is rich in theories which explain this anomaly. However, the gap that this study intends to fill is the study of the long-run performance of IPOs reflecting on its effect on the stock prices. It focuses on both local and international studies.

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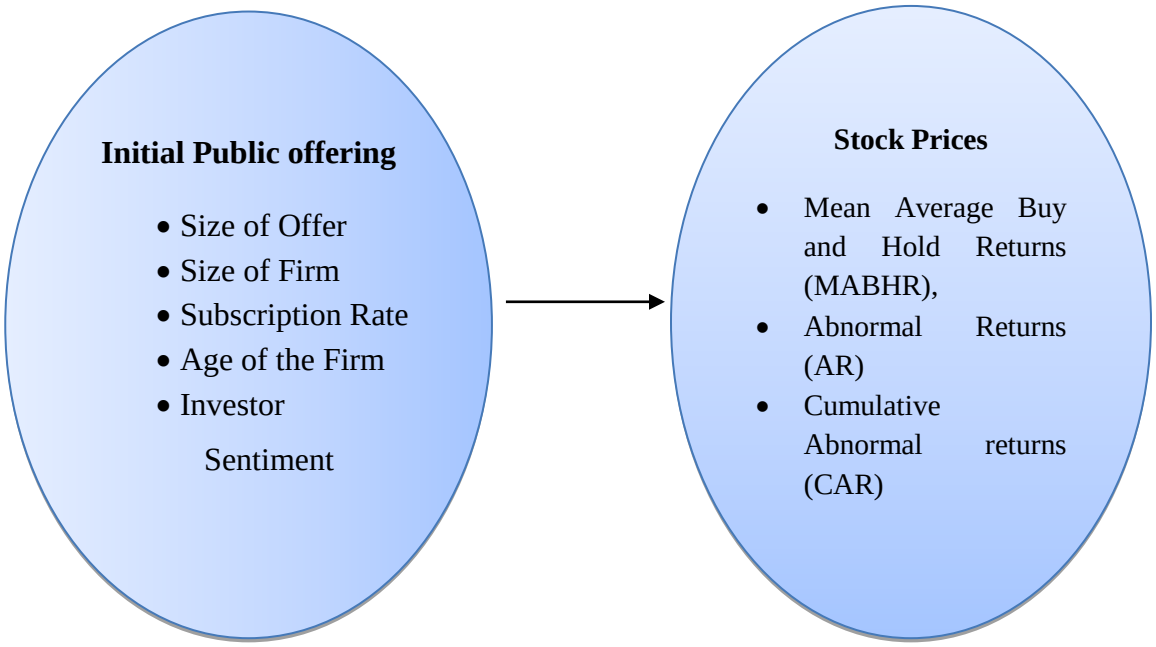
2.6. Conceptual Framework

Independent Variable

Dependent Variable



CHAPTER THREE

STUDY METHODOLOGY

3.1. Introduction

This section covered a description of the study design, data collection, as well as data analysis methods used in this study. The study method was a combined term for the controlled process of carrying out study. This term is frequently included in study plan, data gathering, and data examination.

3.2. Study Design

According to Brown et al (2003), study design offers the glue that grasps the study plan together. This is a scientific research done to describe phenomena, being the long-run performance of IPO in the Kenyan Market. A descriptive survey research design was, therefore, expended for the study. A survey was a present-oriented research that sought to accurately describe the situation as it was. Descriptive research was distinguished as the process of data collection to test the embark on expanded or answer questions concerning the current status of the subject stuy (Mugenda and Mugenda, 2003). This method was selected since it allowed the researcher to meet the aims of the research in analyzing the effect the IPOs have in the long-run stock performance of companies listed.

3.3. Populace

The populace of the research encompassed all the sixty-four listed companies at the NSE as at 2016. The companies were categorized according to the industry and type of equity. The industries are, banking, commercial and services, building and allied, insurance, industrialized and allied and telecommunication, technology, agriculture investment, petroleum energy automobiles and accessories.

3.4. Sample

The study employed a non-probability purposive sampling technique. This technique was used because it proposed that the focus was only on the specific target group of the population and the sample of the study were the firms that issued IPOs between 2007 and 2014.

3.5. Data Gathering

Data collected for this research was secondary data. Secondary data assisted to check certified information; study about key actions, practical facts, past decisions as well as main administrative players and duties. NSE 20 Share Index data was obtained from NSE website, Historical market share prices were obtained from individual company website for the period of 60 months after IPOs between 2007 and 2016 with an exception of Home Afrika which was for a period of 40 months.

3.6. Data Analysis

The data obtained was examined using Numerical Package for Social Science. The quantitative examination convoluted the use of means, comparative occurrences, mode, standard deviation as well as median Kothari (2004).

3.6.1. Mean Average Purchase and Hold Returns

Mean Average Buy and Hold Returns (MABHR), Abnormal Returns (AR) as well as Cumulative Abnormal Returns (CAR) were used to calculate the performance of the stocks. T-statistic for CAR was computed to the test for its significance. MABHR is used by investors who buy shares and keep them for a longer time, irrespective of variations in the market. CAR was used to measure the expected stock returns. The long-run period

covered IPO performance five years after and the first day closing price. MABHR, AR, as well as CAR were used to measure long-run performance.

$$\mathbf{MABHR_{it}} = \sum_{t}^{8} = 2\left(\left\{In\ \frac{Pit}{Pit-1} - In\ \frac{Mit}{Mit-1}\right\}\right.$$

$MABHR_{it}$ is the markets adjusted buy and hold return for a firm *i* over *t*months.

In is the Natural logarithm**.**

$P_{it}$is the concluding price of firm i stock in month t

P_{it-} is the opening price of firm i stock in month t

$M_t$is the closing value of the NSE 20 share index in month t

$M_{t-1}$is the opening value of the NSE 20 share index in month t

A mean MABHR was used to show the MABHR of all IPOs in each year of trading after issue. The mean MABHR was computed as the arithmetic average of abnormal return on the sample size "n" in month t using the model:

$$\mathbf{MMABHR_{ipo,t}} = \frac{1}{n}\sum_{t}^{n} = 1\ \mathbf{MABHR_{it}}$$

3.6.2. Market Model

The market model used was AR and CAR, the anomalous reoccurrence is the alteration between the real yield and the projected yield.

Step 1

Monthly benchmark-adjusted earnings were calculated as monthly raw revenues on an IPO stock less the standard revenues. Following Ritter (1991), the benchmark-adjusted revenues for stock "i" in happening month "t" was defined as;

ARit =Rit - Rbt

Where Rit is the yield for stock “i" in event month “t” and Rbt is the stock yield in the event month “t”.

Step 2

The regular benchmark-adjusted yield on a collection of “n” stocks for occurrence month “t” is the similarly weighted calculation average of the benchmark-adjusted yields:

$AR_t = \frac{1}{n} \sum_t^n = 1\ AR_t$

Step 3 A cumulative average abnormal returns (CARs) was calculated. They are understood as constancy payments for the buy and hold anomalous revenues. It was calculated by summing up the abnormal returns from the six selected firms and equally weighing them to get the average.

$CAR_{it} = \frac{1}{N} \sum_t^N = 1 AR_t$

Corrado and Zivney (1992) model was used to calculate the t- statistic

T-Statistics $= AR_t * \sqrt{\frac{nt}{S\,dt}}$

Where AR_t is the average stock adjusted yield for n months, n_t is the figure of remarks in n months and S_{dt} is the cross sectional standard deviation of the accustomed revenues for n months.

3.6.3. Test of Significance

According to Ritter (1991), a T-test was conducted at 95% confidence level to find if they were significant MABHR and CAR after IPOs listing.

CHAPTER FOUR

DATA ANALYSIS, AND DISCUSSIONS OF FINDINGS

4.1 Introduction

The main objective of the study is to determine the long-run performance of IPOs and effects in the Kenyan stock market. This chapter presents the data analysis, results and discusses the findings of the research. The study used IPOs for the period 2007 to 2014. Since the long-run period used in the study was 3 and 5 years, only IPOs issued after 2007 were used. Monthly market prices were used to compute the IPO returns and monthly market indices were used to compute market returns. Market-adjusted returns were calculated as the return on an IPO minus the return on the NSE 20 share index. The monthly return was measured by comparing the closing price in the last day of trading on which the stock is traded at the closing price in the previous month. The total number of IPOs used was six.

Table 4.1: IPOs between 2007- 2014

NO.	Company Name	IPO Date	Subscription rate (%)
1	Access Kenya Group	04/06/2007	363%
2	Kenya Reinsurance Corporation	27/08/2007	405%
3	Safaricom	09/06/2008	532%
4	Co-Operative Bank Ltd	22/12/2008	80%
5	BRITAM	08/09/2011	60%
6	Home Afrika	15/07/2013	83%

4.2 Descriptive Statistics

4.2.1 Summary of Descriptive Statistics

The table 4.2 presents the summary of descriptive statistics of the share prices, turnover volumes, NSE-20 Index, actual returns computed from the share prices, market return computed from the NSE-20 Index, the expected returns, the abnormal returns, cumulative abnormal returns and MABHR for the companies that issued IPOs between the period 2007 and 2014.

Table 4.2 Summary of Descriptive Statistics

Item	N	Minimum	Maximum	Mean	Std. Dev
Share Price	340	1.1	34.34	10.29394	6.824883
Turnover Volume	340	5250	72816500	4181403	10198309
NSE-20Index	340	2363.99	5490.99	4080.627	736.2868
Actual Return	340	-1	1.4	0.002329	0.176054
Market Return	340	-1	0.4525	-0.00198	0.08841
Expected Return	340	-0.953	0.7807	-0.00081	0.105393
AR	340	-0.3992	0.6972	0.00244	0.132683
CAR	335	-1	1.4243	-0.05228	0.568783
MABHR	340	-0.101	0.1438	0.002393	0.028511

The results indicate that the share price had a mean of 10.29394 with a standard deviation of 6.824883. The mean of Turnover Volume was 4181403. The standard deviation from the mean of the Turnover Volume was 10198309. The mean of the NSE-20 Index was 4080.627 with a standard deviation of 736.2868. The mean of the actual return was 0.002329 and the standard deviation 0.176054. The mean of the market returns was -0.00198 while the standard deviation was 0. 08841. The mean of the expected returns was -0.00081 while the deviations from the mean expected returns were 0.105393. The

mean abnormal return was 0.00244. The standard deviations from the mean abnormal returns was 0. 132683. The results in table 4.2 also indicate that the mean of cumulative abnormal returns was -0.05228, the standard deviation was 0.568783 while the mean of the MABHR was 0.002393 with a standard deviation 0.028511.

4.2.2 Trend Analysis of Opening and Closing Share Prices

Figure 4.1 shows the trends of share prices for companies that issued IPOs for the period 2007 to 2014.

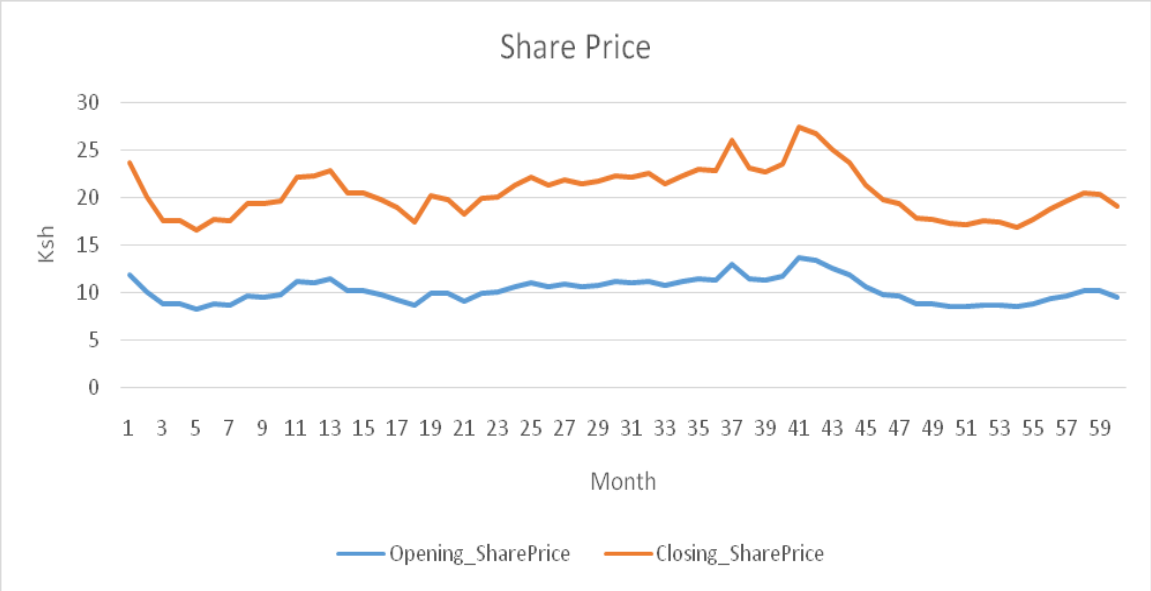


Figure 4.1: Trend Analysis of Opening and Closing Share Prices

The figure indicates that for the first two months after companies issue IPOs there is a sharp decline in share prices before the unsteady increase to the 43rd month where there is share decline. According to Dixon and Holmes (1996) and Jones (1998), information is key in the determination of stock prices. This therefore implies that the information in the markets will always cause the share price fluctuation in the market.

4.2.3 Trend Analysis of NSE-20 Index

The figure 4.2 below shows the NSE-20 share index for the period 2007 to 2014.

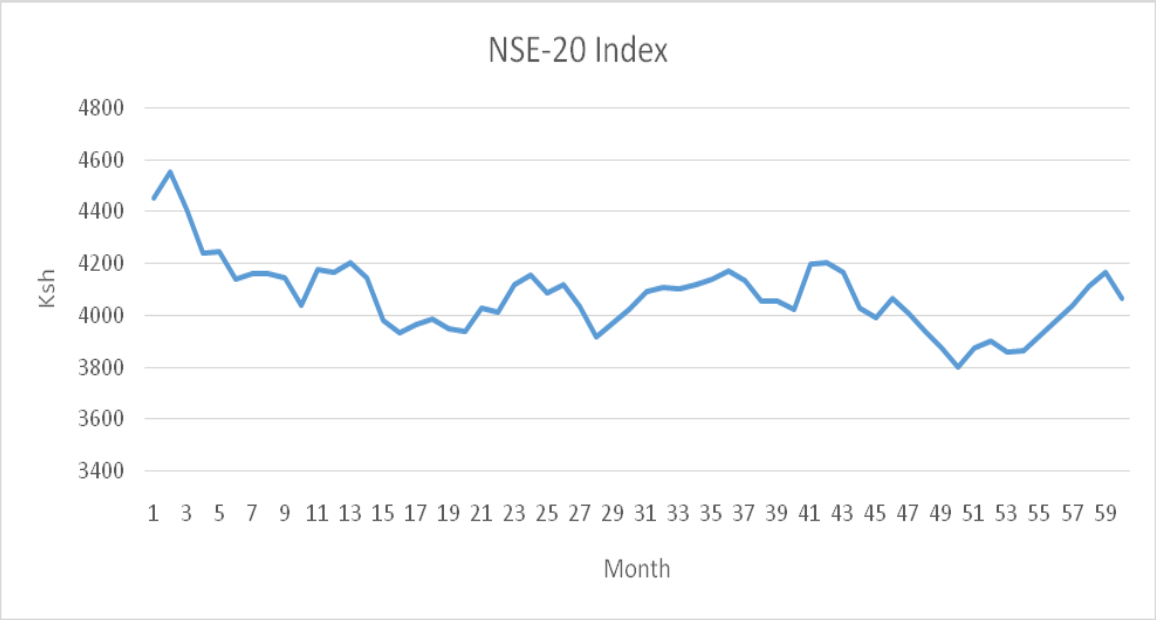


Figure 4.2 Trend Analysis of NSE-20 Share Index

The trend reveals that the NSE-20 share index had been fluctuating over the study period. The finding is consistent with that of Robert (2014) who also found out that the NSE-Index has been fluctuating for the period after 2007 and this was attributable to the political instability experienced in the country and that it took some time before the stock market activities recovered from the shock of the post-election violence.

4.2.4 Trend Analysis of Volume of Shares traded.

Figure 4.3 shows the volume of shares traded for the period 2007 to 2014 by firms that had IPOs.

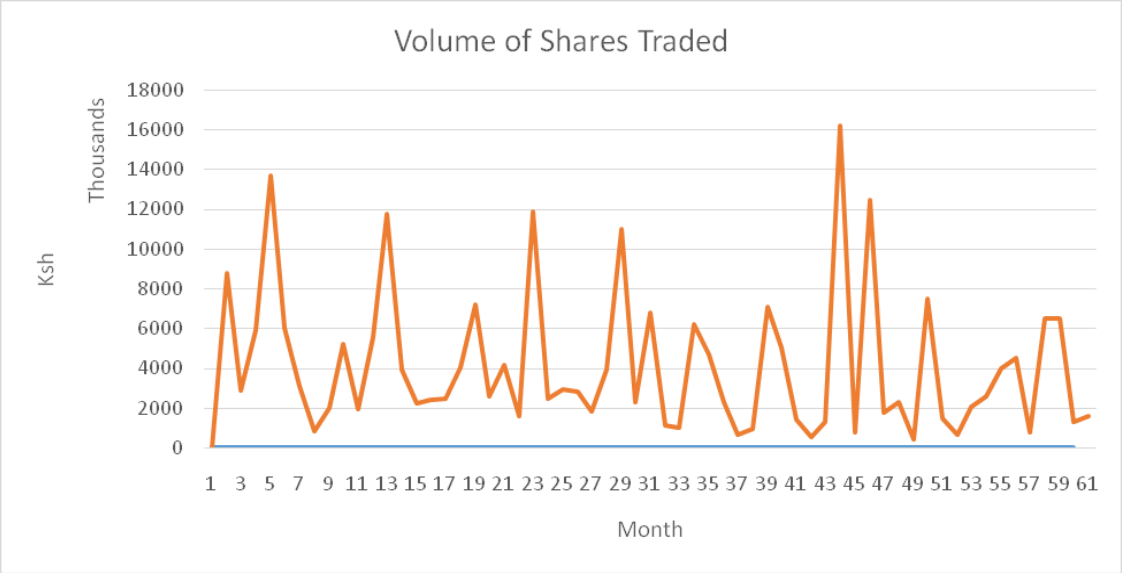


Figure 4.3 Trends of Volume of Shares Traded

The trend shows that the volume of shares traded for the companies in the study period to be fluctuating. The finding is in line with that of Menge (2013) who found that the volume of shares traded is always fluctuating due to continuous changes in the share prices at the NSE thus affecting the volume of shares traded.

4.2.5 Trend Analysis of Actual Return

Figure 4.4 shows the Actual return trends for firms that issued IPOs issue between 2007 and 2014.

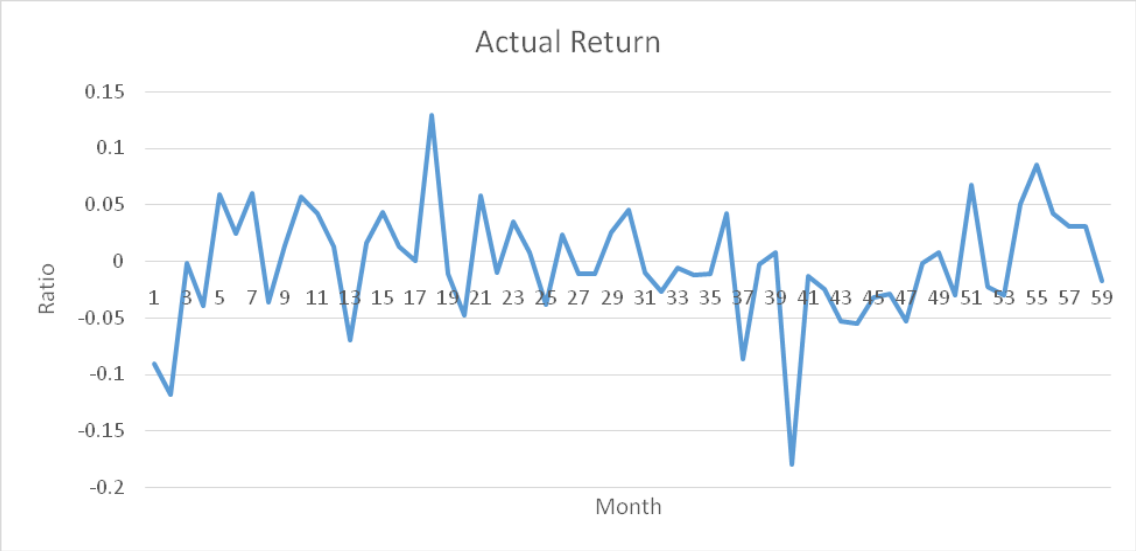


Figure 4.4 Trend Analysis of Stock Returns

The trends indicate fluctuation in actual return over the study period. The findings are in line with those Menge (2013) who found out that actual returns after the period 2007 had been fluctuating as they were affected by the then elections which brought about political instability in the country. This further asserted that the political environment, as well as the macroeconomic environment, significantly affect the stock returns.

4.2.6 Trend Analysis of Market Return

Figure 4.5 below shows the market return for the period 2007 to 2014 by firms that had issued IPOs.

Figure 4.5 Trend Analysis of Market Return

The trends indicate fluctuation in market return over the study period. The findings are consistent with those of Menge (2013) who found out that since market return is derived from NSE 20 Index share price. Market returns after the period 2007 have been fluctuating as they were affected by the then elections which brought about instability in the country affecting the social and economic pattern of the economy. This further asserted that the political environment, as well as the macroeconomic environment, significantly affect the stock returns.

4.2.7 Trend Analysis of Abnormal Returns

Figure 4.6 shows the abnormal return trends for firms that issued IPOs between 2007 and 2014.

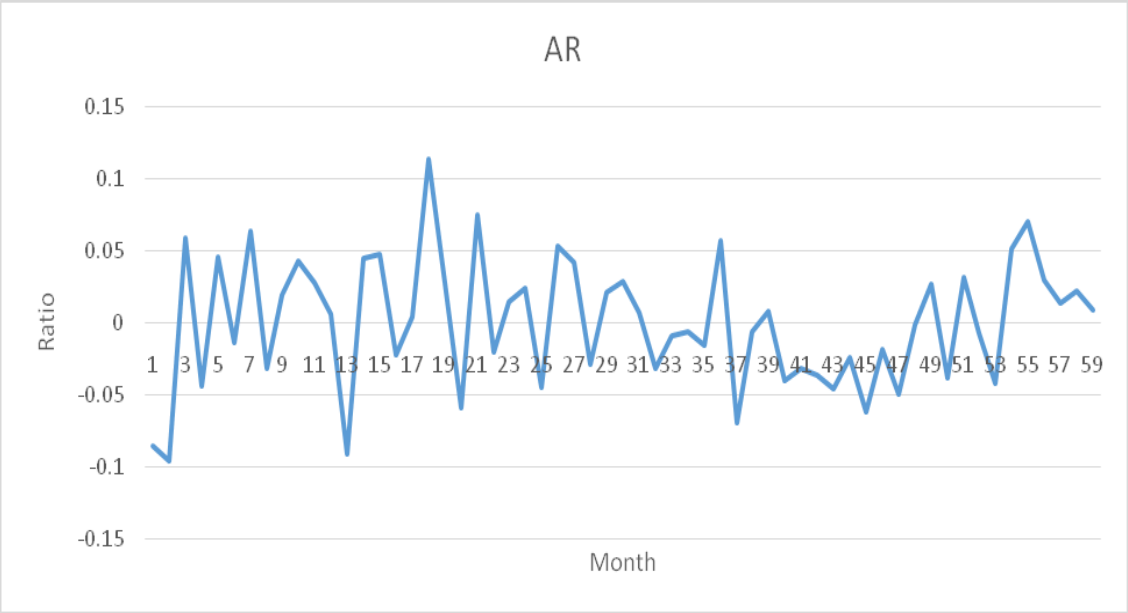


Figure 4.6 Trend Analyses of Abnormal Returns

The trends indicate that the abnormal returns for the period were fluctuating. The finding is consistent with that of Menge (2013) who found these returns to be volatile mainly because abnormal returns are triggered by corporate actions and events.

4.2.8 Trend Analysis of Mean Average Buy and Hold Returns (MABHR)

Figure 4.7 shows the Mean Average Buy and Hold Returns (MABHR) trends for firms that offered IPOs between 2007 and 2014.

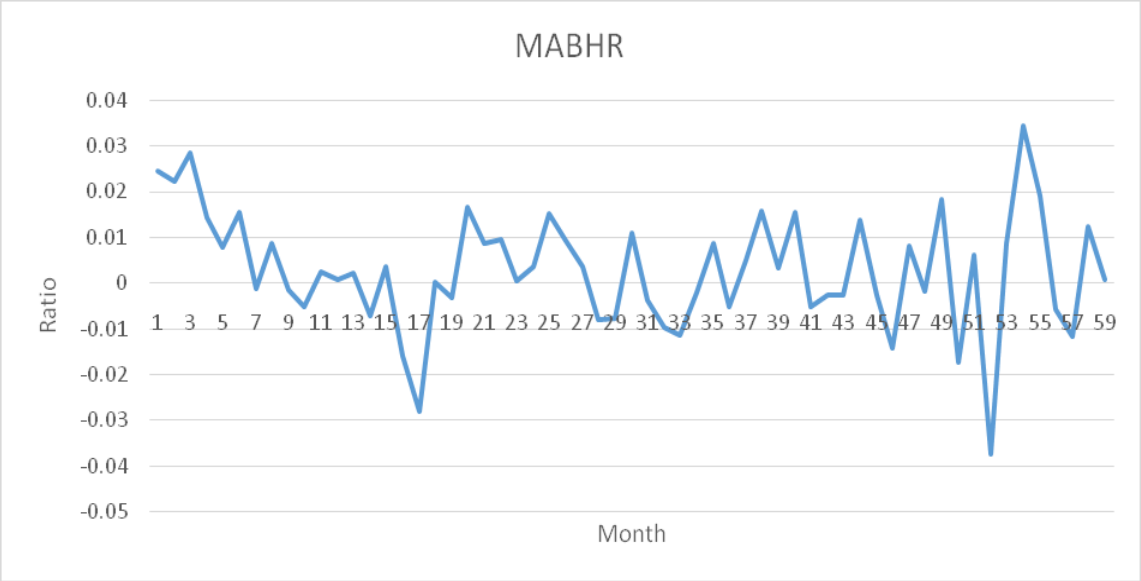


Figure 4.7 Trend Analysis of Mean Average Buy and Hold Returns (MABHR)

The trends indicate fluctuation in Mean Average Buy and Hold Returns (MABHR) over the study period. The finding is in line with Kooli and Suret (2002) who observed that fluctuation in MABHR is due to myopia of investors who are unable to comprehensively grasp the extent to which IPO companies that issue IPOs engaged in earnings management.

4.3 Regression Analysis

In order to compute the expected returns and the abnormal returns the regression model of the following form was run:

$AR_{jt} = R_{jt} - E(R_{jt})$

Where: AR_{jt} is abnormal return for security j over time t, R_{jt} is the return of security j at time t and $E(R_{jt})$ is the expected return of security j at time t.

In order to determine the expected returns $E(R_{jt})$, the following market model regression was run:

$$R_{it} = \alpha + \beta Rm_{it} + \epsilon_{it}$$

Where: R_{jt} and Rm_t are the returns on stock j and market m respectively at time period t and ϵ_{it} is the error term and therefore once the model was run the expected returns $E(R_{jt})$, was computed as

$E(R)=(\alpha + \beta Rm_{it})$, α and β are parameters estimated using Ordinary Least Square.

The results presented below shows the alpha (α) and beta (β) obtained from the regression model.

Table 4.3 Alpha and Beta Coefficients for estimating Expected Returns

Model					**t**	**Sig.**
		B	**Std. Error**	**Beta**		
Access Kenya	(Constant)	0.007	0.02		0.622	0.536
	Market Return	1.688	0.261	0.735	8.249	0
Kenya Re	(Constant)	0.003	0.015		-0.145	0.885
	Market Return	-0.213	0.221	-0.342	-2.775	0.007
Safaricom	(Constant)	0.005	0.013		0.401	0.69
	Market Return	0.243	0.163	0.192	1.487	0.142
Co-op Bank	(Constant)	-0.001	0.015		0.745	0.459
	Market Return	1.603	0.233	0.545	4.953	0
Britam	(Constant)	0.021	0.019		1.251	0.216
	Market Return	1.679	0.26	0.751	8.666	0
Home Afrika	(Constant)	-0.060	0.023		-2.649	0.012
	Market Return	0.893	0.141	0.716	6.33	0

The alpha (α) and beta (β) coefficients thus used to estimate the expected returns equation were -Access Kenya 0.007 and 1.688, Kenya Re0.003 and -0.213, Safaricom0.005, and 0.243, Co-op Bank-0.001 and 1.1603, Britam 0.021 and 1.679, Home Afrika-0.060 and0.893 respectively.

After the expected returns had been computed, abnormal returns were also computed using the equation below;

$AR_{it} = R_{jt} - E(R_{jt})$

Where AR_{it} is the abnormal returns and $R_{jt}$is the actual stock returns and $E(R_{jt})$ is the computed expected stock returns.

4.4 Correlation Analysis

Table 4.4 presents data and computations for each of the six IPOs Individual Company's correlations. The study noted that all the company's share price was positively correlated with the market Index. When a share movement is positively correlated with the index, the share is likely to over perform the market.

Table 4.4: Correlation Analysis

Company			Share Price	NSE20-INDEX
Access Kenya	Share Price	Pearson Correlation	1.000	.369**
		Sig. (2-tailed)		0.004
	NSE20-INDEX	Pearson Correlation	.369**	1.000
		Sig. (2-tailed)	0.004	
Kenya Re	Share Price	Pearson Correlation	1.000	.613**
		Sig. (2-tailed)		0.000
	NSE20-INDEX	Pearson Correlation	.613**	1.000
		Sig. (2-tailed)	0.000	
Safaricom	Share-Price	Pearson Correlation	1.000	.731**
		Sig. (2-tailed)		0.000
	NSE20-INDEX	Pearson Correlation	.731**	1.000
		Sig. (2-tailed)	0.000	
Co-op Bank	Share Price	Pearson Correlation	1.000	.910**
		Sig. (2-tailed)		0.000
	NSE20-INDEX	Pearson Correlation	.910**	1.000
		Sig. (2-tailed)	0.000	
Britam	Share Price	Pearson Correlation	1.000	.717**
		Sig. (2-tailed)		0.000
	NSE20-INDEX	Pearson Correlation	.717**	1.000
		Sig. (2-tailed)	0.000	
Home Afrika	Share Price	Pearson Correlation	1.000	.364*
		Sig. (2-tailed)		0.021
	NSE20-INDEX	Pearson Correlation	.364*	1.000
		Sig. (2-tailed)	0.021	
** Correlation is significant at the 0.01 level (2-tailed).				
* Correlation is significant at the 0.05 level (2-tailed).				

4.5 Interpretation of the Findings and Discussions

4.5.1 Mean Adjusted Buy and Hold Returns

Table 4.5 presents a summary of MABHR for each of the IPOs.

Table 4.5: Summary for MABHR

NO.	Company Name	Short-run 6 months	Long-run 60 months
1	Access Kenya Group	-0.25%	-0.13%
2	Kenya Reinsurance Corporation	0.01%	-0.14%
3	Safaricom	0.61%	-0.44%
4	Co-Operative Bank Ltd	-0.11%	0.20%
5	BRITAM	1.93%	0.40%
6	Home Afrika	1.58%	1.12%
	Mean	**0.63%**	**0.17%**
	STDEV	**0.0093**	**0.0050**

From the table, it is evident that Kenya Reinsurance, Safaricom, BRITAM and Home Afrika over performed the market by 0.01% 0.61%, 1.93%, and 1.580% respectively in the short-run. Access Kenya Group, and Co-Operative Bank Ltd underperformed the market in the short-run by 0.25% and -0.11% respectively. However, BRITAMover performance was the highest at 1.930% in the short-run and Access Kenya Group underperformance was lowest at -0.25%.

Co-Operative Bank Ltd, BRITAM and Home Afrika over performed the market by 0.20% 0.40% and 1.12% respectively in the long-run. Access Kenya Group, Kenya RE and Safaricom underperformed the market in the long-run by -0.13%, -0.14%, and -

0.44% respectively. However, Home Afrika over performance was the highest at 1.12% in long-run and Safaricom underperformance was lowest at -0.44%.

4.5.2: Cumulative Abnormal Returns

Table 4.6 below presents a summary of CAR for each of the IPOs

Table 4.6: Summary for CAR

No.	Company	Short-run	Long-run
1	Access Kenya	1.46%	0.61%
2	Kenya Re	-0.11%	-0.33%
3	Safaricom	-0.51%	-1.41%
4	Co-op Bank	1.20%	1.04%
5	Britam	0.10%	-1.09%
6	Home Afrika	-0.33%	-1.76%
	Mean	**0.30%**	**-0.49%**
	SDV	**0.0076**	**0.010**

From the table, Access Kenya, Co-Operative Bank Ltd and BRITAM over performed the market by 1.46%, 1.20% and 0.10 % respectively for the short-run. Kenya Re, Safaricom amd Home Afrika underperformed the market in the short-run by -0.11%, -0.51% and -0.33% respectively. However, Access Kenya over performance was the highest at 1.146% in the short-run and Safaricom underperformance was the lowest at - 0.51%.

Access Kenya and Co-Operative Bank Ltd over performed the market by 0.61% and 1.04% respectively in the long-run. Kenya Re, Safaricom, BRITAM and Home Afrika underperformed the market in the long-run by -0.33%, -1.41%, -1.09 and -1.76% respectively. However, Co-op Bank over performance was highest at 1.04% in the long-run and Safaricom underperformance was lowest at - 1.41%.

4.5.3 Test of Significance

A t-test was conducted at 95% confidence level to find if there was a significant relation between the short-run and long-run MABHR and CAR after issuance of IPOs. Short-run was the analysis of the first six months after the IPOs were listed while the long-run was the sixty months' analysis and 40 months for Home Afrika. Table 4.7 shows the results from the analysis.

Table 4.7 Summary Test of Significance

Company		Period	Mean	Std. Dev	Std. Err Mean	t-statistic
Access Kenya	MABHR	Short term	-0.002	0.024	0.010	t=-0.093 (p= 0.926)
		Long term	-0.001	0.030	0.004	
	CAR	Short term	0.235	0.104	0.042	t=-3.508 (p=0.001)
		Long term	0.566	0.615	0.084	
Kenya Re	MABHR	Short term	0.000	0.001	0.000	t=0.43 (p=0.669)
		Long term	-0.001	0.024	0.003	
	CAR	Short term	-0.061	0.066	0.027	t=5.331 (p=0.000)
		Long term	-0.273	0.214	0.029	
Safaricom	MABHR	Short term	0.006	0.004	0.002	t=1.088 (p=0.281)
		Long term	-0.004	0.023	0.003	
	CAR	Short term	-0.385	0.155	0.063	t=-0.312 (p=0.756)
		Long term	-0.354	0.237	0.033	
Co-op Bank	MABHR	Short term	-0.001	0.028	0.012	t=-0.312 (p=0.756)
		Long term	0.002	0.021	0.003	
	CAR	Short term	0.200	0.447	0.200	t=-0.809 (p=0.456)
		Long term	0.370	0.487	0.066	
Britam	MABHR	Short term	0.019	0.027	0.011	t=1.512 (p=0.136)
		Long term	0.004	0.023	0.003	
	CAR	Short term	0.000	0.000	0.000	t=3.04 (p=0.004)
		Long term	-0.151	0.361	0.050	
Home Afrika	MABHR	Short term	0.059	0.056	0.023	t=2.364 (p=0.023)
		Long term	0.011	0.044	0.007	
	CAR	Short term	-0.833	0.408	0.167	
		Long term	-0.618	0.493	0.085	t=-1.154 (p=0.283)

Table 4.7 shows the MABHR and CAR t-test analysis on the short-run and long-run. MABHR t-test results show that there was a significant difference between the short-run and long-run of Co-operative and Home Afrika. There was insignificant MABHR t-test between the short-run and the long-run of Access Kenya, Safaricom, Britam and Kenya Re.

CAR t-test results show that there was a significant difference between the short-run and long-run of Access Kenya, Kenya Re and Britam. There was insignificant CAR t-test results between the short-run and the long-run of Co-oparative Bank, Safaricom and Home Afrika.

CHAPTER FIVE

CONCLUSIONS, SUMMARY AND RECOMMENDATIONS

5.1 Introduction

This section presents a summary of the study findings as deliberated in section four as well as conclusions and commendations constructed on the results.

5.2 Summary of the Findings

This study analyzed the effect of the long-run performance of IPOs at the NSE for the Period 2007-2014. It was intended to investigate the extent to which IPOs over performed and underperformed the market in the first five years trading. The data collected was purely secondary and was presented using tables and fingers. According to the findings, using MABHR methodology, Kenya Reinsurance, Safaricom, BRITAM and Home Afrika over performed the market the short-run. Access Kenya Group, and Co-Operative Bank Ltd underperformed the market in the short-run. Co-Operative Bank Ltd, BRITAM and Home Afrika IPOs over performed the market in the long-run while Access Kenya Group, Kenya RE and Safaricom IPOs underperformed the market in the long-run.

Using CAR methodology, Access Kenya, Co-Operative Bank Ltd and BRITAM over performed the market in the short-run while Kenya Re, Safaricom amd Home Afrika underperformed the market in the short-run. Access Kenya and Co-Operative Bank Ltd over performed the market in the long-run while Kenya Re, Safaricom, BRITAM and Home Afrika underperformed the market in the long-run. This confirms Gompers and Lerner (2003) assertion that divergent long-run performance results are observed depending on the empirical methodology applied.

A t-test was conducted at 95% confidence level to find if there was a significant relation between the short-run and long-run MABHR and CAR after listing of IPOs. Short-run was the analysis of the first six months after listing IPOs while the long-run is the sixty months' analysis and 40 months for Home Afrika. Is the difference between the means of short-run and long-run samples different (significant) enough to say that some other characteristic could have caused it? The finding showed that MABHR t-test results show that there was a significant difference between the short-run and long-run of Co-operative Bank and Home Afrika and an insignificant MABHR t-test between the short-run and the long-run of Access Kenya, Safaricom, Britam and Kenya Re. Further, CAR t-test results show that there was a significant difference between the short-run and long-run of Access Kenya, Kenya Re and Britam and insignificant CAR t-test results between the short-run and the long-run of Co-operative Bank, Safaricom and Home Afrika.

The study also established that Safaricom Company had issued the highest number of shares. The study revealed that the closing day prices of shares for all companies under study were higher as compared to the opening prices of the shares. Further, the study revealed that there was oversubscription for shares in Safaricom, Kenya Re and Access Kenya; and under subscription of shares in Co-op Bank recorded and Britam.

5.3 Conclusions

Using MABHR methodology IPOs over performed the market by 0.17% while using CAR methodology IPOs underperformed the market by 0.49%. The study agrees with the assertion by Jumba (2002) and Njoroge (2004) that all the IPOs underperform the market, in the long-run, using CAR methodology.

The size of a firm affects the performance in the long-run. A large firm size decreases the performance of shares in the long-run while a small firm size increases the performance of performance of shares in the long-run. Teker and Ekit (2012), postulate that a company with a bigger number of total assets has less doubt regarding its permanency hence imposing underpricing thus a higher offer price that is consistent with the finding in this study.

The study concludes that the number of shares issued influences performance of the IPO in the long-run, whereby a large number of shares issued reduce the performance of the IPO in the long-run while a smaller IPO issue increases the performance.

The study finally concludes that the percentage subscription affects the performance of shares of a company in the long-run. Increased percentage of subscription decreases the performance of shares in the long-run while decreased in subscription rate increases the performance of shares in the long-run.

5.4 Limitation of the Study

The main limitation of the study was the limited number of firms selected (6) for analysis. There were only six companies that issued IPOs between the year 2007 and 2014. The companies selected were 9.3% of the 64 listed companies in the Nairobi Securities Exchange. This was therefore a low representation of the rate of the target population.

The 5-year time period for analysis was defined as long-run according to the study. The long-term period is, however, absolute and the five years used could as well be a short-term period in other analysis.

The study covered a period of seven years from January 2007 to December 2013. It is possible that a longer period could register different results.

The monthly data for the firms and variables was numerous and from multiple sources. The study might have neglected other market fluctuation dates which could cause different results. Processing the data to generate the required information proved to be a hardy task. The findings were more difficult to characterize in a visual way.

Another limitation of the study is the assumption that other corporate actions, for example, stock splits, bonus issues, rights issues, and debt issues during the event window did not occur and if they did, there was no contamination of results. This could be unrealistic.

5.5 Recommendations

5.5.1 Policy Recommendations

Based on these findings, the study recommends implementation of policies by the NSE management so as to have a consistent situation. The firms should also put in place measures to ensure continued performance of their shares in the long-run. The study recommends for policies to be enacted regulating the number of shares being issued by firms. The findings established that that size of a firm affects the performance of shares of that firm the long-run. Based on the finding, this study recommends that firms listed on the NSE need to put in place strategies that will ensure their continued expansion while ensuring that performance of their shares in the long-run is not negatively affected. The NSE also needs strategies on how to avoid situations where ‘money is left on the table’ following an IPO as the findings from this study noted this as a major cause of underperformance in the long-run.

5.5.2 Suggestions for Further Study

A further research should be carried out on the effects of long-run IPOs performance per company sector. The proper study of few IPOs could done by going through the companies' past financials, business structure, investments, expansion strategies, growth potential and valuations. Further studies should define the various public issues with the need for the company to take out an IPO. There is a need to go on further to explain the advantages of an IPO and analyses in detail of the IPOs scenario as well as go on to explain the evolution of IPOs in Kenya and explain how the scene has changed dramatically.

This research commends that more researches be done on the outcome of Initial Public Offerings on financial and share performance of the firms listed on the NSE. This should include daily and yearly assessment and ratio analysis. This is because this study focused on the effect of IPOs on company's share performance where monthly share prices, the NSE 20-share market index and trading volumes were used. Yearly, rather than monthly, reviews could be an interesting study to identify the effects of IPOs on a company's financial and share performance.

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APPENDIX

Appendix I: Independent Samples Test

Company			Levene's Test for Equality of Variances		t-test for Equality of Means						
			F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Access Kenya	MAB HR	Equal variances assumed	0.326	0.57	-0.093	58	0.926	-0.00118	0.012677	-0.02655	0.024196
		Equal variances not assumed			-0.113	6.943	0.913	-0.00118	0.010433	-0.02589	0.023533
	CAR	Equal variances assumed	12.275	0.001	-1.309	57	0.196	-0.33155	0.253264	-0.8387	0.175604
		Equal variances not assumed			-3.508	49.03	0.001	-0.33155	0.094515	-0.52148	-0.14162
Kenya Re	MAB HR	Equal variances assumed	4.062	0.049	0.143	58	0.886	0.001427	0.009947	-0.01848	0.021337
		Equal variances not assumed			0.43	54.45	0.669	0.001427	0.003314	-0.00522	0.008071
	CAR	Equal variances assumed	7.051	0.01	2.401	57	0.02	0.212164	0.088348	0.03525	0.389078
		Equal variances not assumed			5.331	21.178	0.000	0.212164	0.039798	0.129441	0.294886
Safaricom	MAB HR	Equal variances assumed	3.745	0.058	1.088	58	0.281	0.010515	0.009662	-0.00883	0.029854
		Equal variances not assumed			2.885	45.48	0.006	0.010515	0.003645	0.003176	0.017853
	CAR	Equal variances assumed	2.437	0.124	-0.312	57	0.756	-0.03104	0.099371	-0.23003	0.167942
		Equal variances not assumed			-0.437	7.949	0.674	-0.03104	0.071028	-0.19502	0.132927
Co-op Bank	MAB HR	Equal variances assumed	0.786	0.379	-0.312	58	0.756	-0.00314	0.010036	-0.02322	0.016955
		Equal variances not assumed			-0.245	4.419	0.817	-0.00314	0.012788	-0.03735	0.03108
	CAR	Equal variances assumed	4.928	0.03	-0.752	57	0.455	-0.17037	0.226589	-0.62411	0.283367
		Equal variances not assumed			-0.809	4.924	0.456	-0.17037	0.210713	-0.71455	0.373813
Britam	MAB HR	Equal variances assumed	0.061	0.806	1.512	58	0.136	0.015253	0.01009	-0.00494	0.03545
		Equal variances not assumed			1.335	5.849	0.231	0.015253	0.011424	-0.01288	0.043382
	CAR	Equal variances assumed	6.097	0.017	1.015	57	0.314	0.150943	0.148692	-0.14681	0.448695
		Equal variances not assumed			3.04	52	0.004	0.150943	0.049645	0.051324	0.250563
Home Afrika	MAB HR	Equal variances assumed	1.213	0.278	2.364	38	0.023	0.047556	0.020117	0.00683	0.088282
		Equal variances not assumed			1.983	6.127	0.094	0.047556	0.023982	-0.01083	0.105944
	CAR	Equal variances assumed	9.001	0.005	-1.009	38	0.32	-0.21569	0.213849	-0.6486	0.217228
		Equal variances not assumed			-1.154	7.829	0.283	-0.21569	0.186907	-0.64833	0.216962

Appendix II: Initial Public Offerings (IPOs) at NSE (2007 -2014)

Company Name	Shares Floated	Issue price (KES.)	Amount Raised	IPO Date	Subscription rate (%)
Access Kenya Group	80,000,000	10.00	800,000,000	04/06/2007	363%
Kenya Reinsurance	240,000,000	9.50	2,280,000,000	27/08/2007	405%
Safaricom	10,000,000,000	5.00	50,000,000,000	09/06/2008	532%
Co-Operative Bank Ltd	701,300,000	9.50	5,358,801,800	22/12/2008	80%
BRITAM	660,000,000	9.00	5,940,000,000	08/09/2011	60%
Home Africa	405,255,320	12.00	4,863,063,840	15/7/2013	83%

Appendix III: Descriptive Statistics

Descriptive Statistics				
Period	Company		N	Mean
Short term	Access Kenya	MABHR	6	-0.25%
	Kenya Re	MABHR	6	0.01%
	Safaricom	MABHR	6	0.61%
	Co-op Bank	MABHR	5	-0.11%
	Britam	MABHR	6	1.93%
	Home Afrika	MABHR	6	1.59%
Long term	Access Kenya	MABHR	54	-0.13%
	Kenya Re	MABHR	54	-0.13%
	Safaricom	MABHR	54	-0.44%
	Co-op Bank	MABHR	55	0.20%
	Britam	MABHR	54	0.40%
	Home Afrika	MABHR	34	1.12%

Appendix IV: Listed Companies as at November 2016

AGRICULTURAL

- Eaagads Ltd
- Limuru Tea Co. Ltd
- Williamson Tea Kenya Ltd
- Kapchorua Tea Co. Ltd
- Kakuzi
- Rea Vipingo Plantations Ltd
- Sasini Ltd

AUTOMOBILES AND ACCESSORIES

- Car and General (K) Ltd
- Sameer Africa Ltd
- Marshalls (E.A.) Ltd

BANKING

- Barclays Bank Ltd
- CFC Stanbic Holdings Ltd
- I&M Holdings Ltd
- Diamond Trust Bank Kenya Ltd
- HF Group Ltd
- KCB Group Ltd
- National Bank of Kenya Ltd
- NIC Bank Ltd
- Standard Chartered Bank Ltd
- Equity Group Holdings
- Co-operative Bank Kenya Ltd

COMMERCIAL AND SERVICES

- Express Ltd Ord
- Hutchings Biemer Ltd
- Kenya Airways Ltd
- Nation Media Group
- Standard Group Ltd
- TPS Eastern Africa (Serena) Ltd
- Scangroup Ltd
- Uchumi Supermarket Ltd
- Longhorn Publishers Ltd
- Atlas Development and Support Services
- Deacons (East Africa) Plc

- Nairobi Business Ventures Ltd

CONSTRUCTION AND ALLIED

- Athi River Mining
- Bamburi Cement Ltd
- Crown Berger Ltd
- E.A. Cables Ltd
- E.A. Portland Cement Ltd

ENERGY AND PETROLEUM

- KenolKobil Ltd
- KenGen Ltd Kenya Power & Lighting Co Ltd
- Total Kenya Ltd
- Umeme Ltd

INSURANCE

- Jubilee Holdings Ltd
- Pan Africa Insurance Holdings Ltd
- Kenya Re-Insurance Corporation Ltd
- Liberty Kenya Holdings Ltd Britam Holdings Ltd
- CIC Insurance Group Ltd

INVESTMENT

- Olympia Capital Holdings ltd
- Centum Investment Co Ltd
- Trans-Century Ltd
- Home Afrika Ltd
- Nairobi Securities Exchange Ltd
- Kurwitu Ventures

MANUFACTURING AND ALLIED

- B.O.C Kenya Ltd
- British American Tobacco Kenya Ltd
- Carbacid Investments Ltd East African Breweries Ltd
- Mumias Sugar Co. Ltd
- Unga Group Ltd
- Eveready East Africa Ltd
- Kenya Orchards Ltd
- A.Baumann CO Ltd
- Flame Tree Group Holdings Ltd

TELECOMMUNICATION AND TECHNOLOGY

- Safaricom Ltd

REAL ESTATE INVESTMENT TRUST

- Stanlib Fahari I-REIT