

**LONG RUN PERFORMANCE OF INITIAL PUBLIC OFFERINGS  
AT THE NAIROBI SECURITIES EXCHANGE**

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## DECLARATION

This research project is my original work and has not been submitted to any other university for award of a degree.

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This research project has been submitted for examination with my authority as the university supervisor

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## **DEDICATION**

I dedicate this work to my University of Nairobi Tutors, College colleagues and friends.  
And above all to Almighty God, creator of the universe and everything therein.

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## **ABSTRACT**

This study was aimed to investigate the long-run performance of initial public offerings of firms listed at the Nairobi Securities Exchange so as to address methodological gap which resulted to inconsistent results reported by previous researchers who adopted different research methodologies in investigating the long run performance of IPOs of firms listed at the NSE. This study was anchored on the winners curse theory and the efficient market theory and in order to address the research gap identified, the study adopted a descriptive research design. The study population was the 64 firms that were listed at the NSE as at 31<sup>ST</sup> December, 2014. From the population, 8 firms qualified for the study because they have issued IPOs at the market over the period 2006-2012. Secondary data was sourced from the NSE website and NSE trading data vendors. Market adjusted buy and hold returns (MABHR), mean market adjusted buy and hold returns (MMABHR), abnormal returns (AR) and cumulative abnormal returns (CAR) for the stocks of the firms that issued IPOs at the Nairobi Securities Exchange over the period 2006-2012. The study findings shows that after the issuance IPOs at the NSE, stocks performed fairly well in the first three years of trading and under performed in the fourth year of trading and performed good in the subsequent years of trading. Findings also shows that stocks of the firms that have issued IPOs at the NSE that earned negative returns after the first year of trading also earned negative returns in the subsequent years of trading. On the other hand stocks of the firms that earned positive returns after first year of trading also earned positive returns in the subsequent years of trading. The long run performance of IPOs is a major concern to the whole market: the investors both individual and institutional, CMA, investment bankers, investment brokers and agents. The study recommends that the relevant authorities use the study findings as a source of reference with regard to the long run performance of IPOs issued at the NSE and to evaluate the economic performance of the economy by using the market returns as a basis since high market returns signal good economic conditions while low market returns signal bad economic conditions.

## ABBREVIATIONS AND ACRONYMS

<b>AR</b>	Abnormal returns
<b>AAR</b>	Average abnormal returns
<b>BRITAM</b>	British American Investments Company
<b>CAR</b>	Cumulative Average adjusted Returns
<b>CMA</b>	Capital Markets Authority
<b>CoOp</b>	Co-Operative Bank of Kenya
<b>DASS</b>	Delivery and Settlement System
<b>EMH</b>	Efficient Market Hypothesis
<b>IPF</b>	Investor Protection Fund
<b>IPO</b>	Initial Public Offering
<b>KENGEN</b>	Kenya Electricity Generating Company
<b>KenyaRe</b>	Kenya Reinsurance
<b>KRX</b>	Korea Exchange
<b>MOU</b>	Memorandum of Understanding
<b>MABHR</b>	Market adjusted Buy and Hold Return
<b>MMABHR</b>	Mean Market adjusted Buy and Hold Return
<b>NASDAQ</b>	National Association of Securities Dealers Automated Quotation
<b>NASI</b>	NSE All Share Index
<b>NSE</b>	Nairobi Securities Exchange
<b>SEO</b>	Seasoned Equity Offerings
<b>SGF</b>	Settlement Guarantee Fund
<b>UK</b>	United Kingdom
<b>US</b>	United States

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of Study**

According to Pike and Neale (2009) an IPO involves a firm obtaining a listing on the stock exchange by selling shares and it is managed by sponsors such as an investment bank or a member of the stock exchange, who advises on aspects such as the timing and the price of the shares to be issued. Pricing initial public offerings is difficult because no market price is observable prior to the offer therefore making an IPO a risky investment.

According to the Winners' Curse Hypothesis, general investors who are going to invest in IPO firms by purchasing securities can be divided to two groups. Rock (1986) claimed that informed investors are the group of outside investors who are better informed about firms' value by holding knowledge about cash flow and other statements. The other group is made up of uninformed investors who lack information about future cash flow and value of issuers. This information asymmetry provides a situation that informed investors look for underpriced IPOs while outside uninformed investors lose by investing in less successful IPOs or overpriced issues. Deeds, Decarolis and Combs (1999) indicate that under-pricing is a rational strategy by firms to reduce the effect of this information asymmetry between informed and uninformed investors. In fact, issuer firms under-price their securities to increase the level of participation in public market.

The Nairobi Securities Exchange has had very few IPOs compared to developed markets. The IPOs have been highly oversubscribed with Barclays bank of Kenya recording a high

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 this results into hefty refunds to subscribers. If all investors expect that the long run returns of IPO shares will be negative, through backward induction no one will invest in IPOs in the initial markets. The long run underperformance of IPOs is anomaly that is worth examining (Chen & Pan, 1998).

### **1.1.1 Initial Public Offerings (IPOs)**

IPO is the first issuance of securities with the purpose of selling to the public (Bukh, Nielsen, Gormsen and Mouritsen, 2005). The main aim is to raise more capital from the public and, or provide an exit strategy for some of the companies' current owners besides other rationales that drive a company to trade its shares in the public (Rohini and Phil, 2011) among other various reasons which might prompt a company to make a decision to issue an IPO.

Studies put forward three important rationales for going public. Firstly, the cost of capital structure advocated by Scott (1976) and Modigliani and Miller (1963) argued that companies carry out a public offering when external equity will lessen their cost of capital, and for this reason, maximize the value of the firm. Secondly, Mello and Parsons (2000) and Zingales (1995) argued that an IPO permits insiders to cash out. Black and Gilson (1998) argued that the IPO provides venture capitalists the opportunity to exit, thus providing an attractive harvest strategy. Thirdly, IPOs may facilitate takeover

activity. This is consistent with Zingales (1995) argument that an IPO can serve as a first step en route to having a company taken over at an attractive price.

The valuation of IPOs is quite relevant from an economic efficiency perspective because this is the first opportunity that managers of such companies get to observe the price signals from the public capital markets. Such signals can either affirm or repudiate management's belief regarding its future growth opportunities (Aggarwal, Bhagat and Rangan, 2009). Very little is publicly known about the IPO valuation process used by underwriters because the process is unobservable. Information on IPO valuation in Kenya is also not released to the general public, and therefore the actual methodology used and considerations made are usually not clear.

### **1.1.2 Long-Run Stock Price Performance**

Stock price is the cost of purchasing a stock on an exchange (Ritter, 1998). Therefore, stock price performance refers to the behaviour exhibited by stock price. The different behaviour of stock price in the economy is seen to be attributed to economic variables such as; information on money supply, inflation, output, and the central bank's discount rate (Warner, Watts and Wruck, 1987). Stock prices can also be affected by a number of factors including volatility of the market, current economic conditions and popularity of the company.

Warner, et.al (1987) argued that the stock price performance is of importance to various players in the economy ranging from companies, investors, investment analysts and

consultants. Their study exhibited the importance of the stock price performance as an aid in understanding the efficiency of the management. They demonstrated that there exists a relationship between the share price performance and the company management, which is also of importance to the investment analysts and consultants in giving advice on the stock price performance to their clients.

Goergen, Khurshed and Mudambi (2007) showed that stock price performance can be measured using the returns on the stocks invested. They suggested that the models to be used to calculate these returns include; simple returns, market adjusted returns, cumulative abnormal returns and buy and hold return.

### **1.1.3 Initial Public Offerings and Long-Run Stock Price Performance**

Theories have been put forward to explain share price behaviour in the long-run. According to Fama (1965), the market prices fully reflect the available share information hence in the efficient market, trading of stocks is at fair value and there is no chance of overpricing or under-pricing. The prospect theory by Kahneman and Tversky (1979) explains the rationale behind oversubscription of IPOs. It suggests that investors tend to be risk averse in realms of gains but tend to be risk seekers in times of crisis. Studies conducted show that the models used will determine the extent of long-run performance of IPOs (Wairia, 2010).

Initial empirical evidence on long-run stock price performance indicates that IPO firms severely underperform their comparable benchmarks. Ritter (1991) provides an analysis on a sample of 1,526 IPO firms from 1975 to 1984. These firms significantly

underperform a group of comparable firms matched by size and industry three years after going public. Loughran (1993) compares the return of a portfolio of IPO firms' stocks with the NASDAQ index return and reports an almost -60% underperformance. Loughran and Ritter (1995) show that IPOs conducted from 1970 to 1990 underperform non-issuing firms of similar size by more than -50% over a five-year horizon after the offering. Ritter and Welch (2002) provide empirical evidence showing that IPO firms underperform by -23.4% on average over a three-year period when the market-adjusted return is applied to measure abnormal performance. Long-run performance of IPO firms would contradict market efficiency: post- IPO stock price performance should not be predictable.

Loughran and Ritter (1995) argue that the subsequent long-run underperformance of IPO stocks is due to misevaluation at the time of going public. They contend that investors appear to systematically overweight the growth prospect of IPO firms and underweight long-run mean-reverting trends. In the same vein, Jain and Kini (1994) observe that investors appear to value IPO firms based on the expectation that the projected earnings growth will continue forever although pre-IPO profit margins are not sustained over the long-run. Overall, the timing of IPO issues is identified as the main cause of IPO firms' performance.

#### **1.1.4 Nairobi Securities Exchange**

Nairobi Stock Exchange (NSE) was constituted as a voluntary association of stockbrokers registered under the Societies Act in 1954. The NSE witnessed its first privatization in 1988 when the government sold 20% of its holdings in Kenya

Commercial Bank. Other IPOs which were issued through the NSE after this included ; Kengen, Scan Group, Eveready East Africa, Access Kenya Group, Kenya Re-Insurance Corporation, Safaricom, Co-op Bank of Kenya, Britam and lately the self-listing of Nairobi Securities Exchange. Most of the IPOs were heavily oversubscribed, notably; Safaricom, the biggest offer in the region at 382%, Barclays Bank of Kenya 613%, Kengen 330%, Eveready 800%, and NSE among the latest offerings at 663%. In 1994, the NSE was rated as the best performing market in the world with return of 179% in dollar terms. In the same year the NSE set up a computerized Delivery and Settlement System (DASS) attracting more stock brokers.

In 2008, NSE All Share Index (NASI) was introduced as an alternative to the NSE 20 Share Index. It measures overall market performance and captures all the traded shares of the day. In September 2011, the NSE changed from a company limited by guarantee to a company limited by shares which subsequently gave it the mandate to self- list. In July 2014, the NSE opened its IPO where a total of 17,843 investors participated in the venture that was heavily oversubscribed by 663% resulting in huge refunds to the participants. The NSE is now the second exchange in Africa after Johannesburg that is self-listed (NSE, 2014). It is currently composed of 22 member companies with daily trading volume of 2.5 million shares, average equity turnover of 600 million Kenya shillings and market capitalization of approximately two trillion shillings (NSE Website) In September 2014, the NSE launched a new system for trading corporate bonds and Government of Kenya Treasury Bonds allowing on-line trading of debt securities and is integrated with the settlement system at the Central Bank of Kenya. The system is more

efficient, scalable and flexible, and can support trading in bonds that have been issued in foreign currencies. In October, 2014, the Nairobi Securities Exchange (NSE) and Korea Exchange (KRX) signed a memorandum of Understanding (MOU) in Korea, marking the beginning of collaboration between the Kenya and Korea Capital Markets (NSE, 2014).

The NSE is in the process of launching the derivatives market which will provide a convenient and transparent hedging mechanism for currency and interest- rate risks. On 16 July 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). Previous studies on long run performance of IPOs at the NSE by Jumba (2002), Nabucha (2008) and Ndatimana (2008) have indicated that IPO firms severely underperform their comparable benchmarks.

## **1.2 Research Problem**

According to the winners curse hypothesis on IPO under-pricing, if some investors are more likely to attempt to buy shares when the issue is underpriced, the excess demand will be higher when there is more under-pricing. The signalling hypothesis on under-pricing of IPOs indicates that the under-priced issues leave a ‘good taste’ with the investors, allowing the firms and insiders to sell future offerings at a higher price than would otherwise be the case. This leads to excessive interest in future offerings. Ritter

(1991) found a significant long run under performance at the end of three year following the offering for a sample of 1526 IPOs over the period 1975-1984. He found that the results appeared to be time sensitive.

The NSE which operates under the regulations of the Capital Markets Authority provides a platform for investment and trading in IPOs. Companies which sell their shares through an IPO do so by floating them at the NSE. Most of the companies which have floated their shares through IPOs at the NSE have been overwhelmingly oversubscribed. Notable among them are Barclays bank of Kenya recording a high of 613%, Eveready at over 800%, Safaricom the biggest offer in the region at 382% and NSE at 663.92%. In all the oversubscribed offers, so much money was left 'on the table' and this results into hefty refunds to subscribers (CMA, 2014).

Levis (1993) in a study of 712 UK firms during the period 1980-1988 reported an under performance three years after going public. He noted that the average underperformance in the UK sample appeared to be less excessive than in the Ritter's (1991) US sample. Loughran and Ritter (1995) in their study on the new issues puzzle used a sample of companies issuing IPOs and SEO during 1970-1990 found that firms issuing IPOs and SEOs significantly underperformed relative to non-issuing firms for five years after the offering date. Jumba (2002) studied the performance of IPOs in Kenya for the period 1992-2000 and concluded that in the short run IPOs over perform the market while in the long run IPOs underperformed the market using three year holding period. Njoroge (2004) analyzed initial and long run performance of IPOs at the NSE during the period 1984-2001 and concluded that all IPOs underperformed the market in the long run using

three year holding period. Ndatimana (2008) analyzed the performance of IPOs for the period 1992–2007 and reported that underperformance for the first three years reverses by the fifth year using Market adjusted Buy and Hold Return (MABHR) to measure the performance.

Jumba (2002) used average daily returns and market returns to determine the long run performance of IPOs for the 1992-2000 at the NSE and found out that all IPOs produced returns that were below the market average. Wairia (2010) investigated long run performance of IPOs for the period 2001-2008, the study adopted Mean adjusted buy and hold returns and cumulative abnormal returns models and findings were that IPOs underperform in the long run. Ndatimana (2008) on the other hand used average cumulative returns to investigate long run performance of IPOs and found out that underperformance of IPOs in the first three years reverses in the fifth year.

Despite adoption of different research methodologies by previous researchers, there are contradictory results with regard to the long run performance of IPOs at the NSE. While some studies have shown underperformance in the long run, these studies have been done in the past. Currently, no studies have been done in the recent past to argue whether the underperformance scenario still exists. As a result of the lapse of time, the study was conducted to establish whether IPOs under perform in the long run, hence the research question, does IPOs affect the long run stock performance of listed firms at the NSE?

### **1.3 Research Objective**

This study was aimed to investigate the long-run performance of initial public offerings of firms listed at the Nairobi Securities Exchange.

## **1.4 Value of Study**

The study findings will contribute to the existing literature on IPOs by examining the existing IPOs performance theories and stock price performance within their fifth year of trading. It will also seek to confirm the empirical findings on long-run performance of IPOs.

Based on the findings of this study investors will be able to evaluate the true success of an IPO from an informed point of view without being carried away by the intricacies of the five years of trading. Managers of companies wishing to go public will be in a position to value the IPOs appropriately. Results of this study will enable investment analysts and consultants to advise their clients aptly on IPOs. The findings will also serve as background reference which future researchers can identify gaps for further research on IPOs and their performance.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The literature review is organized into four main sections. The first section is the review of the theories that affect the individual variables that form part of the research question, that is, stock price performance and IPOs. The second section summarizes the determinants of stock price performance followed by a section on empirical evidence. Finally, the chapter concludes with summary literature review.

### **2.2 Theoretical Review on IPOs**

The study of the review of theories that affect the individual variables that form part of the research question, that is, stock price performance and IPOs is anchored on the following theories: Winner's curse theory, Efficient market hypothesis, Signalling theory and Market-Timing theory.

#### **2.2.1 Winner's Curse Theory**

Rock (1986) categorized investors into two types; informed and uninformed. Informed investors are knowledgeable about the future prospects of the shares being sold and will only attempt to buy when the issue is underpriced. Uninformed investors, on the other hand, do not know which issues are underpriced or overpriced, and therefore do not discriminate between issues when they apply for IPOs. They will be allocated only a small fraction (or none at all if the demand is too strong) of the most desirable new issues, while they are certain to get full allotment of the least attractive new issues. The uninformed investors face a winner's curse: if they get all of the shares that they demand,

it is due to the fact that the informed investors do not want them. Due to this adverse selection problem, the uninformed investors will exit the market unless IPOs are sufficiently underpriced on average to compensate them for their informational handicap.

Thaler (1997) in his study argued that even if companies bid somewhat less than the estimate their expert provided, the companies whose experts provided high estimates will tend to bid more than the companies whose experts provided lower estimates. He further emphasized that the firm that wins the auction will be the one whose experts provided the highest estimates. If this happens, the winner of the auction is likely to be a loser. Therefore, information inadequacy plays a key role in generating the estimates which is in concurrence with the winner's curse hypothesis. Cox and Isaac (1984) argued that the winner's curse cannot occur if all the bidders are rational and hence evidence of a winner's curse in the market settings would constitute an anomaly. However, acting rationally in a common value auction can be difficult. Rational bidding requires first distinguishing between the expected value of the stock, conditioned only on the prior information available, and the expected value conditioned on winning the offer.

### **2.2.2 Efficient Market Hypothesis**

In Fama's (1965) dissertation, he stated that at any given time and in a liquid market, security prices fully reflect all available information. Therefore, in an efficient market, competition among the many intelligent participants leads to a situation where, at any point in time, prices of individual securities already reflect all available information. There are three forms of EMH, weak form EMH which postulates that future stock prices

cannot be predicted from historical information about prices and returns. Semi-strong form suggests that stock prices react almost immediately to any new public information about the stock. Lastly, strong-form EMH states that stock prices adjust almost instantaneously not only to new public information but also to new private 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. Malkiel (2003) also believed that security prices can be predicted. According to EMH, stocks always trade at the fair value, thus no chances of over or undervaluation. This implies that market prices fully reflect available information on the stock and therefore investors should expect a normal rate of return. The theory therefore suggests that neither fundamental nor technical security analysis is worthwhile hence, supporting a passive portfolio management (Seneque, 1979).

### **2.2.3 Signalling Theory**

The signaling theory is based on the assumption that the firm knows about its prospects better than the investors. Allen and Faulhaber (1989) find that in some circumstances good firms want to “signal” to their investors about their good future prospects and therefore underprice their IPOs. This is consistent with Ibbotson (1975) conjecture that IPOs are underpriced so as to leave a good taste in the investors’ mouths so that future seasoned equities can be priced higher.

Welch (1989) further formalized this in a two period model where high quality firms will under price but low quality firms will not be able to do so because of high imitation costs. Grinblat and Hwang (1989) add to this body of literature by saying that the issuers signal higher quality in IPOs by underpricing as well as retaining some of the firms' shares in their personal portfolio.

#### **2.2.4 Market-Timing Theories**

Lucas and McDonald (1990) developed an asymmetric information model where firms postpone their equity issue if they know they are currently undervalued. In their model, if a bear market places a low value on the firm, given the knowledge of entrepreneurs, then they will delay their IPOs until a bull market offers more favourable pricing. Choe, Masulis and Nanda (1993) found that firms avoid issuing in periods where few other good-quality firms issue. Other theories have argued that markets provide valuable information to entrepreneurs (information spill overs), who respond to increased growth opportunities signalled by higher prices (Subramanyam & Titman, 1999; Schultz, 2000).

Welch and Ritter (2002) suggested that in addition to rational theories for IPO volume fluctuations, a plausible semi-rational theory without asymmetric information can also explain cycles in issuing activity. Investors need to know how and when new issues can be of benefit to them.

#### **2.3 Determinants of IPO Long run Performance**

A company IPO performance is determined by a variety of factors some of which include the following; volume of IPOs in a given year, firm size, number of shares

approved for listing, age of the company, Revenue , cost of listing and the size of the board of the company, among other determinants.

### **2.3.1 Volume**

The volume of IPOs refers to the number of IPOs issued in a given year as a percentage of the total number in the sample period (Kiran & Phil, 2011). From their study, there is a positive relationship between the level of subscription and returns of IPOs. It depicts the total demand of the issue generated in the market.

### **2.3.2 Firm Size**

Teker and Ekit (2003) in their study proposed that a firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under-pricing, consequently higher offer price. Ritter (1991) argued that larger companies are easier to value because of ease of forecasting cash flows. According to Dalton (2003), the size of the IPO firm has important implication for pricing as it is an important determinant of stability of the firm.

### **2.3.3 Issue Size**

Issue size as a determinant refers to the offer size of a company, that is, the total number of shares a company is selling in their IPO as disclosed in the listing firm's prospectus (Kiran & Phil, 2011). They established a positive relationship between the issue size and the price of the stock. In contrast, Zaluki and Kect (2012) established a negative relationship in the short-run. Megginson and Weiss (1991) studied issue size and under-pricing of IPOs and found out that it is related to proxy for asymmetric information. They therefore, concluded that offer size is inversely related to degree of under-pricing.

#### **2.3.4 Age of the company**

Kiran and Phil (2011) defined the age of a company as the difference between the incorporation date of a company and its listing date irrespective of the company's name change and shifting over from private to public. Their study highlighted that an increase in the company's age results in an increase in the raw returns of the stock. Waelchli and Loderer (2011) attested that getting older slows performance, regardless of whether the measure of a firm's age is from the time of listing or the time of incorporation. They also observed that, the variability of stock returns is negatively related with age of the company.

#### **2.3.5 Listing costs**

Information contained in IPO pre listing documents such as magnitude of listing costs could have a significant bearing on the aftermarket performance of the listing company. These costs, albeit small relative to the size of the companies listing, could have been utilized for capitalizing the business further, in order to enhance the future profitability of the firms (Hanley and Hoberg, 2010).

#### **2.3.6 Board size**

Lin (2014) argued that a smaller board forms consensus more easily and speeds up the decision process; hence it increases the efficiency of the board and enables the board to perform its function more effectively. He further asserted that in turn it improves company performance and concluded that a small board also avoids the free-rider problem and facilitates decision-making productivity of each board member.

## **2.4 Empirical Review**

Long run performance of IPOs has been the subject of a lot of research in many of the jurisdictions with developed capital markets. Several authors have studied aftermarket long-run performance of IPOs from a number of countries. This section discusses past researches which have been done in relation to the IPOs and their long run performance from both the international and local perspective.

### **2.4.1 International Empirical Studies**

Loughran and Ritter (1995) in their study on the new issues puzzle used a sample of companies issuing IPOs and SEOs during 1970-1990. They found that the firms issuing IPOs and SEOs significantly underperformed the market relative to non-issuing firms for five years after the offering date.

In a study of the long-run performance of German IPOs, Stehle and Przyborowsky (2000) showed that size portfolios and matching stocks were better benchmarks than market portfolios. Using buy-and-hold abnormal returns and accounting for the size effect, they reported a long run underperformance for German IPOs of roughly -6% over three years.

Another study by Alvarez and Gonzalez (2001) investigated long-run performance of IPOs in Spanish capital market to provide evidence on the long-run performance of IPOs and the influence of prospectus on the long-run performance. Their sample consisted of 56 companies for the period 1987 to 1997. They calculated returns for the first day of trading and long-run returns of the IPOs for the 12th, 36th and 60th months after the first

day of trading using the following models; buy and hold returns, calendar time portfolios and the Fama and French three-factor model. Buy and hold returns indicated negative abnormal returns that were occasionally significant in the periods of 36th and 60<sup>th</sup> months. Calendar time portfolios and Fama and French three-factor model based on mean monthly returns stated the non-existence of long-run underperformance. They concluded that long-run underperformance was non-existent. However, the magnitude of abnormal returns depended on the method used and to a lesser extent, on the weighting method as well as benchmark used for the adjustment of the IPO returns.

In their study Kooli and Suret (2002) sought to investigate the aftermarket performance of IPOs and the long-run stock price behaviour of unseasoned new issues in Canada. They sampled 445 Canadian IPOs for the period 1991 to 1998. They used three measures to evaluate the long-run performance of IPOs; cumulative average adjusted returns (CARs), buy and hold abnormal returns (BHARs) and the Calendar time abnormal returns (CTARs). Kooli and Suret (2002) found out that investors who purchased immediately after the listing and held shares for five years suffered a loss of 24.66% on an equally weighted basis or 15.16% on a value-weighted basis relative to investment in the controlled companies. The high initial prices on the first day of trading may have been due to myopia of investors who were unable to comprehensively grasp the extent to which IPO companies engaged in earnings management.

Another related study conducted by Goergen, Khurshed and Mudambi (2007) looked at the long-run under-performance of UK IPOs by relating it to the pre-IPO financial performance of the firm as well as the managerial decisions taken before the IPO. A

three-year share return of UK IPOs was studied using the following methods; buy and hold return, cumulative abnormal return and Fama and French three-factor return. They found that the percentage of equity issued and the degree of multi nationality of a firm are the key predictors of its performance after the IPO. Furthermore, small companies behaved differently from large companies and suffered from worse long-run performance than large companies.

### **2.4.2 Local Empirical Studies**

Locally, Jumba (2002) studied the initial public offers in Kenya for the period 1992-2000. Using a sample of 9 IPOs, she found that the average daily return is 0.06% in 3 years after going public, whereas a market model produced daily returns of .3% over the same period. She also found out that for the 3 years buy and hold period, all IPOs produced below the market average with Beta values below 1. Nabucha (2008) in her study of IPOs in the NSE for the period 1984- 2008 sought to find if there existed any difference in the pricing and performance of state owned and private firms. She found that both IPOs depicted negative cumulative abnormal returns of 32% and 6% respectively. She concluded that a long term investor was better of investing in the privatization IPOs as compared to private IPOs.

Similarly, Ndatimana (2008) studied the long run performance of IPOs over a five year period for the period 1992- 2007. He found that the average cumulative returns fall to -3.1% after the first three months, down further to -6.17% at the end of the first year, and randomly traces -1.92%,0.68%, -1.72% and 8.66% at the end of the 2nd, 3rd, 4th and 5th

year respectively. He concluded that there is no discernible regularity of long run performance when gauged against the market benchmarks. Using wealth relatives defined as the average gross total return on IPOs divided by the average gross return on the market index, both measured over 5 years after the IPO excluding the initial return, he found that the wealth relative was 1.0866 at the 5th anniversary and -1.017 at the third anniversary. He asserted that any underperformance for the first three years reverses by the 5th year.

Another local study conducted by Wairia (2010) investigated the long-run performance of IPOs at NSE. The study relied on secondary data of all companies that issued IPOs in NSE from 2001 to 2008, an account of six companies. Mean adjusted buy and hold return, cumulative abnormal return models were used for analysis. According to the study, the IPOs underperformed the market in the long-run, though, study results depended on the model used. 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 studied 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 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 yielded significant initial excess returns, an indicator that within the short-run; the company will attract funding for further growth and instil confidence to the current and prospective investors.

Odongo (2012) carried out a study to determine the relationship between IPO mispricing and long-run performance of companies listed in NSE. The study was based on a population of 58 companies listed in NSE and a sample of twelve companies listed in 1996 to 2012 was considered. Descriptive statistics was carried out for analysis. The result depicted a positive relationship between offer prices in the first day price with a significance level of +0.021. The value showed a significant effect of the offer price on the performance of share price in the market. It also showed a negative relationship between under-pricing and performance of shares with a negative coefficient of -0.158, which showed that lower offer prices have higher degrees of under-pricing.

## **2.5 Summary of Literature Review**

This chapter has presented theories relevant in explaining the long run performance of IPOs which are as follows, Winner's Curse Theory, Efficient Market Hypothesis, Signalling Theory and Market Timing Theory. This chapter also provide the determinants of long run long run performance of IPOs. The last section of this chapter gives an empirical review of studies on the long run performance of IPOs focusing on both local and international studies. While Ndatimana (2008) found out that long run underperformance in three years reverses in the 5th year, studies by Jumba (2002) and Njoroge (2004) limited their period of study to three years and reported long run underperformance of IPOs. Ritter (1998) observed that companies that went public during 1970-1993 produced an average return of 7.9% per year for the five years after going public, while the market average annual return was 13.1%, thus IPOs underperformed the market.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

Research methodology describes the steps followed to solve the research problem. This chapter is subdivided into five sections as follows: research design, population of the study, the sample, data collection techniques and data analysis techniques.

### **3.2 Research Design**

The study adopted descriptive research design to test the long run performance of IPOs at the NSE in the long-run. The study covered all the sixty four companies listed as at 31<sup>st</sup> December 2014. The NSE 20 share index was used as a benchmark for market performance indicator.

### **3.3 Target population of the Study**

The population of the study comprised of all the 64 listed companies at the NSE as at December 2014 (see appendix 1). The companies are categorized according to the industry and type of equity as follows: Agriculture, automobiles and accessories, banking, commercial and services, construction and allied, energy and petroleum, insurance, investment, manufacturing and allied and telecommunication and technology.

### **3.4 Sampling Techniques and Study Sample**

The study adopted non probability purposive sampling technique. This technique was selected because it proposes that the focus is only on the specific target group of the

population and the sample of the study was the firms that have issued IPOs during the period 2006-2012 (see appendix 2).

### **3.5 Data Collection Techniques**

Secondary data was obtained from NSE records sourced from the NSE website and NSE trading data vendors. The data series sourced comprised of stock prices of firms listed at the NSE that have issued IPOs during the period 2006-2012 (see appendix 3).

### **3.6 Data Analysis**

The data collected was analysed using tables. Both Microsoft Excel and SPSS program were used in analysing the data collected. Mean Average Buy and Hold Returns (MABHR), Abnormal Returns (AR) and Cumulative Abnormal Returns (CAR) were used to calculate the performance of the stocks. T-statistic for CAR was computed to test for its significance. MABHR was used as a measure of returns to investors who buy stocks and hold them for a long period of time, regardless of fluctuations in the market. CAR used to measure the expected stock returns. The long-run covered the stock price performance five years after and the closing of the first day of trading. MABHR, AR and CAR will be used to measure long-run performance.

#### **3.6.1 Market Adjusted Buy and Hold Returns (MABHR)**

The following model proposed by Ritter (1991) was used to calculate the MABHR.

$$MABHR_{it} = \sum_{E}^8 \left( \ln \frac{P_{it}}{P_{it-1}} - \ln \frac{M_t}{M_{t-1}} \right)$$

Where:

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

$\ln$  is the Natural logarithm.

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

$P_{it-1}$  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:

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

Where:

$MMABHR_{ipo,t}$  is the mean market adjusted buy and hold return of all IPOs in the

sample in period  $t$ .

$n$  is the number of firms that have issued IPOs during the study period 2006-2012.

$MABHR_{it}$  is the Mean adjusted buy and hold returns for firm  $i$  in month  $t$ .

### 3.6.2 Market Model

The study adopted a market model used to determine the AR and CAR which represents the abnormal return and cumulative abnormal return respectively. The abnormal returns is the difference between the actual return represented by the NSE 20 share index return and the expected return of firms that are listed at the NSE and have issued IPOs during the study period 2006-2012.

The abnormal returns were calculated as the difference between the stock returns of the firms that have issued IPOs at the NSE and the return on the NSE 20 share index. The study adopted the abnormal returns calculation as follows:

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

Where:

$AR_{it}$  is the abnormal return of firm  $i$  stock in month  $t$ .

$R_{it}$  is the return of firm  $i$  stock in month  $t$ .

$E(R_{it})$  is the expected return of firm  $i$  stock in month  $t$ .

The  $E(R_{it})$  was calculated using the CAPM proposed independently by Treynor (1961),

Sharpe (1964), Lintner (1965) and Mossin (1966) as follows:

$$E(R_{it}) = R_f + \beta_i(R_f - R_m)$$

Where:

$E(R_{it})$  is the expected return of firm  $i$  stock in month  $t$ .

$R_f$  is the risk free rate i.e. interest rate on treasury bills.

$\beta_i$  is the beta coefficient.

$R_m$  is the market return.

The average abnormal return of all the firms that have issued IPOs at the NSE during the study period in month  $t$  is the equally-weighted arithmetic average of the abnormal returns as follows:

$$AAR_t = \frac{1}{n} \sum_{i=1}^n AR_{it}$$

Where:

$AAR_t$  is the average abnormal returns of all the firms that have issued IPOs at the NSE during the study period.

$n$  is the number of firms that have issued IPOs during the study period 2006-2012.

$AR_{it}$  is the abnormal return of firm  $i$  stock in month  $t$ .

Cumulative average abnormal returns (CARs) was calculated as follows:

$$CAR_{it} = \frac{1}{n} \sum_{t=1}^n AR_t$$

### **3.7 Test of Significance**

According to Ritter (1991) a T-test was conducted at 95% confidence level to find if there was significant MABHR and CAR after the issuance of IPO at the NSE.

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

### 4.1 Introduction

This chapter presents the results on descriptive statistics of the variable of the study. This includes the mean, standard deviation, variance, skewness and kurtosis of the stock returns of the firms that have issued IPOs at the NSE. The section also reports the findings with regard to the performance of IPO by giving the MABHR, MMABHR, AB, AAR and CAR. As a test of significance t test results are shown.

### 4.2 Descriptive Statistics

Table 4.1 below reports the descriptive statistics on the stock returns of the firms that have issued IPOs at the NSE over the period 2006-2012.

**Table 4.1: Descriptive Statistics of Stock Returns**

Descriptive Statistics										
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic						
Co-op Bank	78	.59	-.20	.39	.59	.0076	.09023	.008	.733	3.333
ScanGroup	105	.67	-.31	.36	.71	.0068	.09931	.010	.273	1.536
KenGen	105	.68	-.36	.32	-1.40	-.0133	.11237	.013	.025	1.264
Eveready EA	102	.85	-.36	.49	-1.83	-.0179	.11895	.014	.705	3.075
AccessKenya	101	.69	-.38	.31	-.69	-.0068	.10835	.012	-.489	2.309
KenyaRe-insurance	93	.72	-.32	.40	.08	.0009	.09989	.010	.700	3.067
Safaricom	84	.55	-.36	.19	.51	.0061	.09353	.009	-1.026	2.263
Britam	47	.63	-.27	.36	.92	.0196	.12387	.015	.271	.829
Valid N (listwise)	47									

Source: Author, 2015.

Table 4.1 above reports that the stock returns a mean of 0.0076, 0.0068, -0.0133, -0.0179, 0.0068, 0.0009, 0.0061 and 0.0196 for Co-op Bank, scan group, KenGen, Eveready, AccessKenya, KenyaRe, Safaricom and Britam respectively. The total returns during the study period was 0.59, 0.71, -1.40, -1.83, -0.69, 0.08, 0.51 and 0.92 for the stock of Co-op Bank, scan group, KenGen, Eveready, AccessKenya, KenyaRe, Safaricom and Britam respectively. Over the study period Access Kenya experienced the lowest return of -0.38 while Eveready on the other hand experienced the highest return of 0.49.

The measure of asymmetry shows that the stock returns of Access Kenya and Safaricom are skewed to the left of their means as they have a skewness statistic which less than 3 (-0.489 for Access Kenya and -1.026 for Safaricom) while the stock returns of the other firms are skewed to the right of their means as they have a skewness statistic which is more than 3 (0.733, 0.273, 0.025, 0.705, 0.700 and 0.271 for Co-op Bank, Scan Group, KenGen, Eveready, KenyaRe and Britam respectively).

The measure of peakedness shows that the stock returns of Co-op Bank, Eveready and KenyaRe have steep distribution more than a normal distribution as they have a kurtosis statistic of more than 3 (3.333, 3.075 and 3.067 for Co-op Bank, Eveready and KenyaRe respectively). On the other hand Scan Group, Kengen, Access Kenya, Safaricom and Britam have flatter distributions than a normal distribution as they have kurtosis statistic of less than 3 (1.536, 1.264, 2.309, 2.263 and 0.829 respectively).

### 4.3 Performance of IPOs at the NSE

The objective of the study was to analyse the long run performance of IPOs of the firms listed at the NSE during the period 2006-2012. To achieve this, Mean adjusted buy and hold returns, abnormal returns and cumulative abnormal returns were calculated.

#### 4.3.1 Market Adjusted Buy and Hold Returns of IPOs at the NSE

The market adjusted buy and hold returns were calculated to represent the returns that an investor would earn by investing in the IPOs. They were calculated as follows:

$$MABHR_{it} = \sum_{t=1}^8 \left( \ln \frac{P_{it}}{P_{it-1}} - \ln \frac{M_t}{M_{t-1}} \right)$$

Table 4.2 below shows the market adjusted buy and hold returns of IPOs of the firms listed at the NSE over the period 2006-2012.

**Table 4.2: Market Adjusted Buy and Hold Returns**

MARKET ADJUSTED BUY AND HOLD RETURNS										
Company Name	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
ScanGroup	-0.20	0.13	0.34	0.11	0.54	0.02	0.32	-0.16	0.04	0.02
Kengen	-0.23	0.00	0.00	-0.18	0.14	-0.45	-0.17	0.35	-0.36	-0.03
Eveready	-0.76	-0.52	-0.07	-0.20	-0.47	0.05	0.32	0.32	0.13	
KenyaRe	0.04	0.22	0.08	-0.20	-0.02	0.32	0.20	0.05	0.20	
Safaricom	-0.19	0.36	-0.24	-0.16	0.31	0.69	0.13	0.20		
CoOp Bank	0.01	0.48	-0.19	-0.14	0.21	0.06	0.19			
Access Kenya	0.42	0.43	-0.04	-0.59	-0.77	-0.34	0.70			
Britam	0.00	0.01	0.73	0.49	-0.30					

Source: Author, 2015.

Table 4.2 above reports that in year 1 the stocks of Scan Group, KenGen, Eveready and Safaricom earned negative returns while KenyaRe, Co-op Bank, Access Kenya and

Britam earned positive returns. In year 2 of trading after issue only the stock of Eveready earned negative returns while those of the other firms earned positive returns. In the third year of trading the stock Scan Group, Kengen, KenyaRe and Britam earned positive returns while those of Eveready, Safaricom, Co-op Bank and Access Kenya earned negative returns. During the fourth year of trading only the stock of ScanGroup and Britam earned positive returns while those of the other firms earned negative returns. In the fifth year of trading after issue the stock of Eveready, Access Kenya, KenyaRe and Britam earned negative returns while those of the other firms earned positive returns. In the sixth year of trading after trading only KenGen and Access Kenya stocks earned negative returns while the rest of the firms earned positive returns. In the seventh year of trading only the stock of KenGen earned negative returns while those of the other firms earned positive returns. During the eighth year of trading after issue only the stock of Scan Group earned negative returns while those of the other firms earned positive returns. In both the ninth and tenth year of trading the stock of Kengen earned negative returns while those of the other firms earned positive returns.

### **4.3.2 Mean Market Adjusted Buy and Hold Returns**

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 year t using the model:

$$MMABHR_{ip,o,t} = \frac{1}{n} \sum_{i=1}^n MABHR_{it}$$

**Table 4.3: Mean Market Adjusted Buy and Hold Returns**

MARKET MEAN ADJUSTED BUY AND HOLD RETURNS										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
MMABHR	-0.21	-0.03	0.05	0.04	0.01	-0.26	0.04	0.38	0.10	0.06

Source: Author, 2015.

Table 4.3 above reports the mean market buy and hold returns of the IPOs of the firms listed at the NSE over the period 2006-2015. The findings shows that in the years 2006, 2007 and 2011 IPOs at the NSE earned negative mean market adjusted buy and hold returns while in the years 2008, 2009, 2010, 2012, 2013, 2014 and 2015 they earned positive results.

### 4.3.3 Abnormal Returns

The abnormal returns of the stock of firms that have issued IPOs at the NSE over the period 2006-2012 are as tabulated below.

**Table 4.3: Abnormal Returns**

ABNORMAL RETURNS										
Company Name	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ScanGroup	-3.70	-13.97	-14.99	14.49	-5.25	-14.24	-23.89	-16.77	-17.36	-12.84
Kengen	6.57	27.39	29.76	28.18	11.39	27.24	46.84	32.62	33.43	24.94
Eveready		-18.05	-19.32	17.97	-7.30	-17.95	-29.62	-20.05	-21.02	-15.63
KenyaRe		4.83	15.79	14.90	5.67	14.29	24.90	17.08	17.72	13.26
Access Kenya		9.28	22.17	22.82	15.53	7.40	39.65	23.14		
Safaricom			6.54	12.87	4.72	11.16	22.21	14.79	15.16	10.90
CoOp Bank				12.29	5.35	11.80	20.21	14.18	14.69	11.00
Britam						39.22	130.23	90.14	94.11	68.88

Source: Author, 2015.

As reported in Table 4.3 above the stocks of ScanGroup and Eveready had negative abnormal returns over the period 2006-2015 while the stock of the other firms had positive abnormal returns over the same period.

#### 4.3.4 Average Abnormal Returns

Average abnormal returns were used to show the AAR of all IPOs in each year of trading after issue. The AAR was computed as the arithmetic average of abnormal return on the sample size  $n$  in year  $t$  using the model:

$$AAR_t = \frac{1}{n} \sum_{i=1}^n AR_{it}$$

**Table 4.4: Average Abnormal Returns**

AVERAGE ABNORMAL RETURNS										
YEAR	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AAR	1.44	1.89	6.66	8.37	4.30	9.86	28.82	19.39	19.53	14.36

Source: Author, 2015.

Table 4.4 above reports the average abnormal returns of stocks of the firms that issued IPOs at the NSE over the period 2006-2015. In the years 2012, 2013, 2014, and 2015 the average abnormal returns were very high while in the years 2006 all through to 2011 the average abnormal returns were very low.

#### 4.3.5 Cumulative Abnormal Return

Table 4.5 below reports the cumulative abnormal returns of stock of the firms that have issued IPOs at the NSE.

**Table 4.5 Cumulative Abnormal Returns**

CUMULATIVE ABNORMAL RETURNS										
Company Name	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ScanGroup	-3.70	-17.67	-32.67	-47.16	-52.41	-66.65	-90.53	-107.31	-124.67	-137.51
Kengen	6.57	33.97	63.73	91.91	103.30	130.54	177.37	209.99	243.42	268.36
Eveready		-18.05	-37.37	-55.34	-62.64	-80.59	-110.21	-130.27	-151.28	-166.91
KenyaRe		4.83	20.62	35.52	41.20	55.48	80.38	97.45	115.18	128.43
Access Kenya		9.28	31.45	54.27	69.80	77.19	116.84	139.98		
Safaricom			6.54	19.41	24.13	35.29	57.50	72.28	87.44	98.34
CoOp Bank				12.29	17.64	29.44	49.65	63.83	78.53	89.53
Britam						39.22	169.46	259.60	353.71	422.58

Source: Author, 2015.

Table 4.5 shows that both the stocks ScanGroup and Eveready underperformed while the stocks of the other firms over performed in the market after listing.

#### **4.4 Discussions of Findings**

Findings of the study shows that stocks of the firms that have issued IPOs at the NSE over the period 2006-2012 generally earned positive returns after the third year of trading meaning that they performed well in the long run. These findings contradict the findings reported by Stehle and Przyborowsky (2000) that German IPOs underperform in the stock exchange, Loughran and Ritter (1995) that IPOs significantly underperform, Wairia (2010) that IPOs underperform in the market. On the other hand the findings supports the findings of Alverz and Gonzalez (2001) that there is non-existence of underperformance of IPOs at the Spanish Stock Market, Wachira (2012) that IPOs yield significant initial returns after being listed and Ndatimana (2008) that the underperformance of IPOs in the first years of trading reverses in the fifth year of trading.

## 4.5 Test of Significance

Test of significance was conducted using the f test and t test as shown in the table 4.6 below.

**Table 4.6 Test of Significance**

		Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
ScanGroup	Equal variances assumed	27.575	.000	4.729	18	.000
	Equal variances not assumed			4.729	9.000	.001
Kengen	Equal variances assumed	27.542	.000	-4.716	18	.000
	Equal variances not assumed			-4.716	9.000	.001
Eveready	Equal variances assumed	31.414	.000	5.195	16	.000
	Equal variances not assumed			5.195	8.001	.001
KenyaRe	Equal variances assumed	28.113	.000	-4.190	15	.001
	Equal variances not assumed			-4.460	8.000	.002
Safaricom	Equal variances assumed	13.150	.003	-4.422	13	.001
	Equal variances not assumed			-4.114	6.001	.006
CoOp Bank	Equal variances assumed	28.808	.000	-3.896	13	.002
	Equal variances not assumed			-4.185	7.001	.004
Access Kenya	Equal variances assumed	21.598	.001	-4.278	12	.001
	Equal variances not assumed			-4.278	6.004	.005
Britam	Equal variances assumed	10.788	.011	-3.676	8	.006
	Equal variances not assumed			-3.676	4.000	.021

Source: Author, 2015.

Table 4.6 shows that there is significant difference between the variability in MABHR and CAR. Further the findings show that there is a significant difference between the

MABHR and CAR of the IPOs that were issued at the NSE over the period 2006-2012.

This is because all the significance value is less than 0.05.

## **CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

The main objective of the study was to investigate the long run performance of IPOs at the firms listed at the NSE. This chapter presents discussions of the findings of the study, conclusions drawn from the findings, recommendations to the market participants and the regulator, limitations of the study and suggestion for further research.

### **5.2 Summary of Findings**

The study findings shows that after the issue IPOs at the NSE, stocks of the respective firms performed fairly well in the first three years of trading and under performed in the fourth year of trading and performed good in the subsequent years of trading. Findings also shows that stock of the firms that have issued IPOs at the NSE that earned negative returns after the first year of trading also earned negative returns in the subsequent years of trading. On the other hand stocks of the firms that earned positive returns after the first year of trading also earned positive returns in the subsequent years of trading.

These findings contradict the findings reported by Stehle and Przyborowsky (2000) that German IPOs underperform in the stock exchange, Loughran and Ritter (1995) that IPOs significantly underperform, Wairia (2010) that IPOs underperform in the market. On the other hand the findings supports the findings of Alverz and Gonzalez (2001) that there is non-existence of underperformance of IPOs at the Spanish Stock Market, Wachira (2012)

that IPOs yield significant initial returns after being listed and Ndatimana (2008) that the underperformance of IPOs in the first years of trading reverses in the fifth year of trading. The study findings are in line with the EMH propositions by Fama (1965) that it is impossible to predict the market performance with regard to price changes and returns. The findings shows no consistency in the returns earned in the market making it difficult to predict the performance of IPOs.

### **5.3 Conclusions of the Study**

From the findings of the study it can be concluded that over 80% of the IPOs that have been issued at the NSE have earned positive returns in the first year of trading and in the subsequent years of trading, thus it can be noted that the long run performance of IPOs at the NSE is good.

The market adjusted returns at the NSE are positive which shows that the market is developed as returns derived from the market are positive which is a major concern of investors and to the government because it serves as an indicator of good economic status of the country as a whole.

### **5.4 Recommendations of the Study**

The long run performance of IPOs is a major concern to the market participants: the investors both individual and institutional, CMA, investment bankers, investment brokers and agents. The findings of the study will act as a source of reference with regard to the long run performance of IPOs issued at the NSE.

The findings of the study provide a platform of evaluating the economic performance of the country. This is because securities market serves as an investment platform for investors whose aim is to maximize their return. The findings of the study can be used to evaluate the economic performance of the economy by using the market returns as a basis since high market returns signal good economic conditions while low market returns signal bad economic conditions.

### **5.5 Limitations of the Study**

The trading data about the daily share price of the firms listed at NSE is very expensive to obtain thus making it very difficult for the researcher to consider longer period in the study. Due to this only 10 years of trading after issue was considered.

### **5.6 Suggestion for Further Research**

Based on the findings, the study suggests that a study be done to determine whether the long run performance of IPOs at the NSE is affected by the sector that the firm belongs to.

Based on the findings, the study suggests that a study be done to determine whether there is difference between the long run performance of IPOs and seasoned offerings at the NSE.

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## APPENDICES

**Appendix 1: List of Companies Listed at the Nairobi Securities Exchange**

<b>NO.</b>	<b>AGRICULTURAL</b>	<b>NO.</b>	<b>CONSTRUCTION AND ALLIED</b>
1	Eaagads Ltd	33	Athi River Mining
2	Kapchorua Tea Co. Ltd	34	Bamburi Cement Ltd
3	Kakuzi	35	Crown Berger Ltd
4	Limuru Tea Co. Ltd	36	E.A.Cables Ltd
5	Rea Vipingo Plantations Ltd	37	E.A.Portland Cement Ltd
6	Sasini Ltd		<b>ENERGY AND PETROLEUM</b>
7	Williamson Tea Kenya Ltd	38	KenolKobil Ltd
	<b>AUTOMOBILES AND ACCESSORIES</b>	39	Total Kenya Ltd
8	Car and General (K) Ltd	40	KenGen Ltd
9	Sameer Africa Ltd	41	Kenya Power & Lighting Co Ltd
10	Marshalls (E.A.) Ltd	42	Umeme Ltd
	<b>BANKING</b>		<b>INSURANCE</b>
11	Barclays Bank Ltd	43	Jubilee Holdings Ltd
12	CFC Stanbic Holdings Ltd	44	Pan Africa Insurance Holdings Ltd
13	I&M Holdings Ltd	45	Kenya Re-Insurance Corporation Ltd
14	Diamond Trust Bank Kenya Ltd	46	Liberty Kenya Holdings Ltd
15	Housing Finance Co Ltd	47	British-American Investments Company ( Kenya) Ltd
16	Kenya Commercial Bank Ltd	48	CIC Insurance Group Ltd
17	National Bank of Kenya Ltd		<b>INVESTMENT</b>
18	NIC Bank Ltd	49	Olympia Capital Holdings ltd
19	Standard Chartered Bank Ltd	50	Centum Investment Co Ltd
20	Equity Bank Ltd	51	Trans-Century Ltd
21	The Co-operative Bank of Kenya Ltd	52	Home Afrika Ltd
	<b>COMMERCIAL AND SERVICES</b>	53	Kurwitu Ventures
22	Express Ltd		<b>INVESTMENT SERVICES</b>
23	Kenya Airways Ltd	54	Nairobi Securities Exchange Ltd
24	Nation Media Group		<b>MANUFACTURING AND ALLIED</b>
25	Standard Group Ltd	55	B.O.C Kenya Ltd
26	TPS Eastern Africa (Serena) Ltd	56	British American Tobacco Kenya Ltd
27	Scangroup Ltd	57	Carbacid Investments Ltd
28	Uchumi Supermarket Ltd	58	East African Breweries Ltd
29	Hutchings Biemer Ltd	59	Mumias Sugar Co. Ltd
30	Longhorn Kenya Ltd	60	Unga Group Ltd
31	Atlas Development and Support Services	61	Eveready East Africa Ltd
	<b>TELECOMMUNICATIONAND ECHNOLOGY</b>	62	Kenya Orchards Ltd
32	Safaricom Ltd	63	A.Baumann CO Ltd
		64	Flame Tree Group Holdings Ltd

## Appendix 2: List of firms with IPOs

<b>COMPANY</b>	<b>DATE OF ISSUE</b>
KENGEN	May 2006
Scan Group	August 2006
Eveready East Africa	December 2006
Access Kenya Group	June 2007
Kenya Reinsurance Corporation	August 2007
Safaricom	June 2008
Co-operative Bank of Kenya	December 2008
BRITAM	September 2011

**Source: NSE**

### Appendix 3: Data Collection Sheet

Company Name	Year	Opening Stock Price	Closing Stock Price	Stock Return	Opening Index Value	Closing Index Value	Index Return	Risk Free Rate	Covariance, IPO, Market	Variance Market	Beta Value	Expected Return	Abnormal Returns	Cumulative Abnormal Returns	Mean market Adjusted Returns
ScanGroup															
Kengen															
Eveready															
KenyaRe															
Access Kenya															
Safaricom															
Co-oP Bank															
Britam															