

**Determinants of Profitable Opportunities for Retail Investors after  
an Initial Public Offer in Kenya**

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**A Thesis Submitted in Partial Fulfilment for the Degree of  
Doctorate of Philosophy in Business Administration in the Jomo  
Kenyatta University of Agriculture and Technology**

**2015**

## DECLARATION

This thesis is my original work and has not been presented for a degree in any other university

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## **DEDICATION**

To my wife Agatha, my children Michael and Michelle, my parents, Michael and Mary for their support and patience while writing this thesis.

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To my wife Agatha, my children Michael and Michelle, my parents, Michael and Mary for their support and patience while writing this thesis.

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## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>DEDICATION .....</b>	<b>iii</b>
<b>DEDICATION .....</b>	<b>iii</b>
<b>LIST OF TABLES .....</b>	<b>ix</b>
<b>LIST OF FIGURES .....</b>	<b>xii</b>
<b>ABBREVIATIONS AND ACRONYMS .....</b>	<b>xiv</b>
<b>DEFINATIONS OF TERMS.....</b>	<b>xv</b>
<b>ABSTRACT.....</b>	<b>xvii</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study.....	1
1.2 Statement of the Problem .....	9
1.3 Objectives.....	11
1.4 Research Hypotheses .....	11
1.5 Significance of the Study .....	12
1.6 Scope of the Study.....	13
1.7 Limitations of the Study.....	14
<b>CHAPTER TWO .....</b>	<b>15</b>
<b>LITERATURE REVIEW .....</b>	<b>15</b>
2.1 Introduction .....	15
2.2 Theoretical Review .....	15
2.3 Conceptual Framework .....	21

2.4	Empirical Review .....	24
2.5	Critique of Existing Literature .....	33
2.6	Chapter Summary .....	35
2.7	Research Gap.....	35
<b>CHAPTER THREE .....</b>		<b>37</b>
<b>RESEARCH METHODOLOGY .....</b>		<b>37</b>
3.1	Introduction .....	37
3.2	Research Design .....	37
3.3	Target Population .....	39
3.4	Sampling Frame.....	39
3.5	Sampling Design.....	40
3.6	Sample Size .....	41
3.7	Data and Data Collection Instruments .....	42
3.8	Data Collection Procedure .....	43
3.9	Pilot Test .....	44
3.10	Data Processing and Analysis .....	46
3.11	Ethical Issues.....	49
<b>CHAPTER FOUR.....</b>		<b>50</b>
<b>RESULTS AND DISCUSSION .....</b>		<b>50</b>
4.1	Introduction .....	50
4.2	Response Rate .....	50
4.3	Demographic Information.....	50
4.4	Profitable Opportunities.....	52

4.5	Industrial Performance .....	58
4.6	Corporate Governance .....	66
4.7	Economic Performance .....	75
4.8	Technology .....	84
4.9	Economic Resources .....	92
4.10	Model Summary .....	101
<b>CHAPTER FIVE.....</b>		<b>104</b>
<b>SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .....</b>		<b>104</b>
5.1	Introduction .....	104
5.2	Summary of the Findings .....	104
5.3	Conclusions .....	107
5.4	Recommendations.....	108
5.5	Areas for Further Study.....	110
<b>REFERENCES.....</b>		<b>111</b>



## LIST OF TABLES

<b>Table 3.1:</b> Reliability Tests.....	45
<b>Table 4.1:</b> Response Rate .....	50
<b>Table 4.2:</b> Level of Education.....	51
<b>Table 4.3:</b> Reliability Test for Profitable Opportunities.....	53
<b>Table 4.4:</b> Profitable Opportunities KMO Sampling Adequacy and Bartlett's Sphericity Tests .....	53
<b>Table 4.5:</b> Profitable Opportunities Total Variance Explained .....	54
<b>Table 4.6:</b> Profitable Opportunities Factor Analysis Component Matrix .....	55
<b>Table 4.7:</b> Profitable Opportunities for Retail Investors .....	56
<b>Table 4.8:</b> Reliability Test for Industrial Performance .....	58
<b>Table 4.9:</b> Industrial Performance KMO Sampling Adequacy and Bartlett's Sphericity Tests .....	59
<b>Table 4.10:</b> Industrial Performance Total Variance Explained .....	59
<b>Table 4.11:</b> Industrial Performance Factor Analysis Component Matrix .....	60
<b>Table 4.12:</b> Industrial Performance.....	62
<b>Table 4.13:</b> Relationship between Industrial Performance and Profitable Opportunities .....	63
<b>Table 4.14:</b> Model Summary for Industrial Performance .....	65
<b>Table 4.15:</b> ANOVA for Industrial Performance .....	65
<b>Table 4.16:</b> Coefficients of Industrial Performance.....	66
<b>Table 4.17:</b> Reliability Test for Corporate Governance .....	66
<b>Table 4.18:</b> Corporate Governance KMO Sampling Adequacy and Bartlett's Sphericity Tests .....	67

<b>Table 4.19:</b> Corporate Governance Total Variance Explained .....	68
<b>Table 4.20:</b> Corporate Governance Factor Analysis Component Matrix.....	69
<b>Table 4.21:</b> Corporate Governance .....	71
<b>Table 4.22:</b> Relationship between Corporate Governance and Profitable Opportunities .....	72
<b>Table 4.23:</b> Model Summary for Corporate Governance .....	74
<b>Table 4.24:</b> ANOVA for Corporate Governance .....	74
<b>Table 4.25:</b> Coefficients of Corporate Governance.....	75
<b>Table 4.26:</b> Reliability Test for Economic Performance .....	75
<b>Table 4.27:</b> Economic Performance KMO Sampling Adequacy and Bartlett's Sphericity Tests.....	76
<b>Table 4.28:</b> Economic Performance Total Variance Explained.....	77
<b>Table 4.29:</b> Economic Performance Factor Analysis Component Matrix.....	78
<b>Table 4.30:</b> Economic Performance .....	80
<b>Table 4.31:</b> Relationship between Economic Performance and Profitable Opportunities .....	81
<b>Table 4.32:</b> Model Summary for Economic Performance.....	82
<b>Table 4.33:</b> ANOVA for Economic Performance .....	83
<b>Table 4.34:</b> Coefficients of Economic Performance .....	84
<b>Table 4.35:</b> Reliability Test for Technology.....	84
<b>Table 4.36:</b> Technology KMO Sampling Adequacy and Bartlett's Sphericity Tests	85
<b>Table 4.37:</b> Technology Total Variance Explained.....	86
<b>Table 4.38:</b> Technology Factor Analysis Component Matrix .....	86
<b>Table 4.39:</b> Technology.....	88

<b>Table 4.40:</b> Relationship between Technology and Profitable Opportunities .....	89
<b>Table 4.41:</b> Model Summary for Technology .....	90
<b>Table 4.42:</b> ANOVA for Technology .....	91
<b>Table 4.43:</b> Coefficients of Technology .....	92
<b>Table 4.44:</b> Reliability Test for Economic Resources.....	92
<b>Table 4.45:</b> Economic Resources KMO Sampling Adequacy and Bartlett's Sphericity Tests .....	93
<b>Table 4.46:</b> Economic Resources Total Variance Explained .....	94
<b>Table 4.47:</b> Economic Resources Factor Analysis Component Matrix .....	95
<b>Table 4.48:</b> Economic Resources.....	97
<b>Table 4.49:</b> Relationship between Economic Resources and Profitable Opportunities .....	98
<b>Table 4.50:</b> Model Summary for Economic Resources .....	99
<b>Table 4.51:</b> ANOVA for Economic Resources .....	100
<b>Table 4.52:</b> Coefficients of Economic Resources.....	100
<b>Table 4.53:</b> Model Fit for Profitable Opportunities .....	101
<b>Table 4.54:</b> ANOVA for Profitable Opportunities.....	101
<b>Table 4.55:</b> Model Summary and Parameter Estimates .....	102

## LIST OF FIGURES

<b>Figure 2.1:</b> Conceptual Framework.....	23
<b>Figure 4.1:</b> Gender of the Respondents .....	51
Figure 4.2: Length of Employment.....	52
<b>Figure 4.3:</b> Normality of Profitable Opportunities.....	57
<b>Figure 4.4:</b> Linear Relationship between Industrial Performance and Profitable Opportunities .....	64
<b>Figure 4.5:</b> Linear Relationship corporate Governance and Profitable opportunities .....	73
<b>Figure 4.6:</b> Linear Relationship between Economic Performance and Profitable Opportunities .....	82
<b>Figure 4.7:</b> Linear Relationship between Technology and Profitable Opportunities	90
<b>Figure 4.8:</b> Linear relationship between Economic Resources and Profitable Opportunities .....	99

## **LIST OF APPENDEXIES**

<b>Appendix I:</b> Introduction Letter.....	120
<b>Appendix II:</b> Questionnaire .....	121
<b>Appendix III:</b> List of Brokerage Firms at Nairobi Security Exchange .....	130
<b>Appendix IV:</b> Sampling frame .....	132
<b>Appendix V:</b> Companies that has floated shares in the last ten years.....	133

## **ABBREVIATIONS AND ACRONYMS**

<b>BV</b>	Book Value
<b>IPO</b>	Initial Public Offering
<b>MV</b>	Market Value
<b>NSE</b>	Nairobi Security Exchange
<b>ROE</b>	Return on Equity
<b>SEC</b>	Securities Exchange Commission
<b>SPSS</b>	Statistical package for Social Sciences

## **DEFINATIONS OF TERMS**

### **Initial public offer**

Initial public offering (IPO) occurs when a company issues common stock or shares to the public for the first time. They are often issued by smaller, younger companies seeking capital to expand, but can also be done by large privately-owned companies looking to become publicly traded. In an IPO, the issuer may obtain the assistance of an underwriting firm, which helps it determine what type of security to issue (common or preferred), best offering price and time to bring it to market (Busaba, 2006).

### **Profitable opportunities**

Profitability opportunities indicate the power of a firm to earn profits. The ability of an enterprise also denotes its earning power or operating performance. Also, that the business ability points towards the financial and operational ability of the business. So, on this basis profitability may be defined as the ability of a given instrument to earn a return from its use, (Welch and Ritter, 2002). Weston and Brigham defines profitability as "the net surplus of a large number of policies and decisions."

### **Retail investor**

A retail investor is an individual who purchases securities for his or her own personal account rather than for an organization. Retail investors typically trade in much smaller amounts than institutional investors such as mutual funds, pensions, Retail investing generally occurs through individual investors, retail brokers (who act at the direction of these individuals), managed accounts (whereby the account manager makes the buy and sell decisions for the individual (Bubere and Shihab, 2012).

## **Technology**

The making, usage and knowledge of tools, machines, techniques, crafts, systems or methods of organization in order to solve a problem or perform a specific function. It can also refer to the collection of such tools, machinery, and procedures (Merriam-Webster, 2012).

## **Corporate Governance**

Corporate governance relates to the internal means by which corporations are operated and controlled. While governments play a central role in shaping the legal, institutional and regulatory climate within which individual corporate governance systems are developed, the main responsibility lies with the private sector (Dehaene, De Vuyst, & Ooghe, 2001)



## ABSTRACT

The purpose of this research was to investigate the determinants of profitable opportunities for retail investors after initial public offer in Kenya. The presence of profitable opportunities for retail investors can help them make better investment decisions in the stock market. Specifically the study investigated whether the industrial performance in Kenya determines profitable opportunities for retail investors after IPOs, establish whether company's corporate governance in Kenya influences profitable opportunities for retail investors after IPOs, determine the effect of economic performance in Kenya on profitable opportunities for retail investors after IPOs, find out whether the technology in Kenya determines profitable opportunities for retail investors after IPOs and to evaluate whether the availability of economic resources in Kenya determines profitable opportunities for retail investors after IPOs. The study sought from previous research on returns on Initial Public Offerings (IPOs) on retail investors whether they have documented abnormal returns and made the assumption that if an abnormal return exists, there are profitable opportunities for retail investors. To assess the determinants of profitable opportunities for retail investors after the IPOs the study adopted descriptive survey design. The target population of the study was all retail investors from 21 listed firms in the Nairobi Security Exchange. A sample of 384 respondents was selected using simple random sampling in each firm. This study used both primary and secondary data. Data collection instrument used was questionnaires. Data was analyzed quantitatively and qualitatively and results presented descriptively and illustrated by use of tables and charts. Information was sorted, coded and input into the statistical package for social sciences (SPSS) for production of graphs, tables, descriptive statistics and inferential statistics. The study findings indicated that there were increased profitable opportunities for retail investors due to Initial public offers. The study findings further indicated that industrial performance, corporate governance, industrial performance, technology and economic resources were statistically significant in explaining profitable opportunities for retail investors. The study concludes that firm size had a significant impact on IPO pricing and larger firms are easier to value because of ease of forecasting cash flows. The study concludes that the listed brokerage firms had an effective and independent board committee, the firms had in place monitoring committees (audit, nomination, and compensation committees), which lead to better organization performance and firms gain legitimacy through prestigious board of directors. The study recommends that the firms should look into the several factors before announcing of IPOs this is because the size of the IPO firm has important implication for pricing as it is an important determinant of stability of the firm. The study recommends that the firms should be more market oriented so as to ensure that the market information obtained from customers and the competitors helps the firm to keep an eye on the market. The study further recommends that the management should allocate adequate resources to all departments in the firm.



# CHAPTER ONE

## INTRODUCTION

This chapter gives the overview of the profitable opportunities for retail investors after initial public offer. This chapter presents the background of the study, the statement of the problem, the study objectives, the hypotheses, the scope and justification of the study. Limitations of the study are also presented in the chapter.

### 1.1 Background of the Study

Initial public offering (IPO) occurs when a company issues common stock or shares to the public for the first time. They are often issued by smaller, younger companies seeking capital to expand, but can also be done by large privately-owned companies looking to become publicly traded. In an IPO, the issuer may obtain the assistance of an underwriting firm, which helps it determine what type of security to issue (common or preferred), best offering price and time to bring it to market (Busaba, 2006). Initial Public Offering (IPO) in India means the selling of the shares of a company, for the first time, to the public in the country's capital markets (Busaba, 2006). This is done by giving to the public, shares that are either owned by the promoters of the company or by issuing new shares. During an Initial Public Offer (IPO) the shares are given to the public at a discount on the intrinsic value of the shares and this is the reason that the investors buy shares during the Initial Public Offering (IPO) in order to make profits for themselves (Busaba, 2006).

Investment opportunities have always been an interesting topic for academics to study, and researchers have tried to explain and understand why investors act in a certain way (Loughran & Ritter, 2002). Generally speaking, there are two distinctive ways in which investors act. The first one is "Sentiment investors", in which investors are overoptimistic and only tend to buy at a higher-than-market-price (Cornelli, Goldreich & Ljungqvist, 2006). Second, there are "Rational investors", whom act in their best self-interest and they tend to buy only at the fair value, which

is assumed to be the market price in an efficient market. Researchers have also been curious on how different investment decisions affect the market. One interesting subject for researchers has been to study Initial Public Offerings (IPOs) because of the documented high initial returns (Loughran & Ritter, 2002).

When looking at previous research on IPOs such as Chemannur et al. (2010) and Chan (2010) there is a distinction between retail investors and institutional investors and their role in IPOs. According to Chan (2010) previous literature has established a link between retail sentiment and the pricing of IPOs shares. Previous literature also suggests that retail demand on pre-IPO markets reflects the retail investors' optimism towards the IPO stock and that pre-IPO market demands are able to predict the short run aftermarket prices (Chan, 2010). Furthermore Chan (2010) gives some examples of studies that have documented a positive relationship between retail investors' demand for IPO shares and IPOs short term aftermarket performance, which indicates that retail investors are able to pick high first-day returns IPOs. Chan (2010) also states that individual investors are subject to sentiment and sometimes they can be overly optimistic while on other times they can be very pessimistic, which reflects the pricing on IPOs shares.

Institutional investors on the other hand are organizations such as investment banks, pension funds and insurance companies, which should be specialists in trading. However their role in the IPO market is quite different from that of the retail investors. The institutional investors play an important role in supporting IPOs in the aftermarket by holding weaker post-issue demand for a relative longer period of time, and are thus compensated with more allocations from the underwriters (Chemmanur et al., 2010). They also possess significant private information about the IPO companies even after the IPO which helps them outperform the market in the short run (Chemmanur et al., 2010). Consequently this would lead to that the informed (institutional investor) compete with the uninformed (retail investor) which suggest that the uninformed would have a disadvantage when investing in IPOs if they are not being compensated.

Previous researches on IPOs such as McDonald and Fisher (1972), Rock (1986) and Lowrey et al. (2010) have shown that undervaluation is a common phenomenon and one of the reasons is due to information asymmetry between institutional investors and retail investors. Other researchers such as Chemmanur, Hu and Huang (2010) support the argument that institutional investors possess significant private information about IPOs, and they receive good compensation for this.

### **1.1.1 Global Outlook of Profitable Opportunities for Retail Investors after an Initial Public Offer**

Informed investors create a negative externality for the uninformed investors, since the informed will only submit purchase orders when the offer price is at or below what they know to be the true value. Uninformed investors thus suffer from a winner's curse: they will receive all of the shares being sold when the offer is overpriced, but only some of the shares being sold when the offer is underpriced. To compensate the uninformed investors for this adverse selection, IPOs must be underpriced, on average (Rock, 2006). If IPO under pricing is determined largely by a need to compensate investors for adverse selection risk, one might expect that improvements in disclosure regulation would lead to less under pricing. Chambers and Dimson (2009), however, document that in the U.K. there was an increase in under pricing over the 1917-2007 period, in spite of an evolution of the IPO market from a weakly regulated series of local markets to a national market with greater regulation.

During the early phase of trading, the IPOs are unable to be priced at their intrinsic values, but eventually their true values are reflected in their pricing. A negative post-issue IPO performance was reported by Hoechle and Schmid (2007). Based on a sample of 7,378 IPOs issued in USA during the period 1975-2005, they have evidence that IPO under performance is more pronounced during the first year of trading.

Davis and Kirulak (2005) studied the Japanese IPO market and found that when there is a high demand there is a positive and significant relationship between underwriter reputation and the level of under pricing. Corwin and Schultz (2005) found that a large syndicate particularly more co-managers leads to an increased analysts coverage resulting in less under pricing and more accurate offer prices. Barzel et al. (2006) found that syndicates are an institutional arrangement designed to avoid wealth transfer from the issuing company to the investors.

### **1.1.2 Profitable Opportunities for Retail Investors after an Initial Public Offer (IPOs) in Emerging Economies**

In the case of the Indian market which is dominated by retail investors, we are likely to find the impact of sentiment investors on IPO returns. Furthermore, the long delay of about three-weeks between the completion of book building and stock market listing provides an ample opportunity for sentiment investors to trade based on their excessive interest in a given issue. Furthermore, it also gives sophisticated investors an opportunity to exploit sentiment investors to make an abnormal profit. Thus it is possible that findings reflect the findings reported in studies of other grey markets for IPOs. On the other hand, it is also possible that sentiment investors' overreaction could be corrected more rapidly in the cases of issues with high grey market prices. This is due to the large time delay between the completion of book-building and listing in the stock exchanges, (Welch & Ritter, 2002).

In recent times, in India, the allotment of shares in Initial Public Offerings (IPOs) of the firms has invited considerable media attention Welch and Ritter, 2002. Securities and Exchange Board of India (SEBI)- the regulator of the market, has imposed penalties on the Depository Participants (DPs) for not being able to detect a scam in allotment of shares in IPOs under fictitious names. This raises an interesting question of why do the investors adopt any means- fair or foul to get allocations in IPOs. It has been well documented in Finance literature that world over the IPOs are underpriced (Welch & Ritter, 2002). Under pricing means that the IPOs on the day of

their listing trade at prices which are higher than those at which they are offered. This market inefficiency ensures that retail investors who are allotted shares in the IPOs can make gains by selling these shares off at higher prices on the day of listing.

Boreiko and Lombardo (2011) suggest that in Italian IPOs the retail investors are able to identify extreme underpriced IPOs. Similar conclusion was drawn in the Chinese IPO market. Guo et al. (2011) identified several interesting characteristics that can help explain why the Chinese IPOs are so underpriced. Among them was the ownership effect and regulatory interference. It is also believed that the IPO market in China has a substantial number of optimistic investors.

IPOs have historically been of interest for retail investors due to the documented high initial returns on the first day of trading as previous research suggest. To benefit from IPOs retail investors need to acquire private information about it in order to select the profitable IPOs (Chemmanur et al., 2010). This leads to that institutional investors will receive this private information while the retail investors will not. To compensate for the risk to invest in an "unknown" company as a retail investor, the IPO needs to be underpriced (Chemmanur et al., 2010). In other words, information asymmetry is one of the explanations for under pricing.

Bubere and Shihab (2012) conducted a study to investigate if retail investors have profitable opportunities in the Nordic markets. The authors found from previous research on Initial Public Offerings (IPOs) that they have documented abnormal returns and they made the assumption that if abnormal returns exists, there are profitable opportunities for retail investors and thus they wanted to contribute with up-to date research to help retail investors make a better investment choice in the Nordic markets. Previous research have linked different theories and models to explain why under pricing might occur and amongst the most cited theories by researchers are the information asymmetry, winner's curse and signaling hypothesis. To investigate if there are profitable opportunities for retail investors Bubere and Shihab (2012) chose to conduct a quantitative cross-sectional study on 68 IPOs from the years 2005 to 2011 in the Nordic markets. This contributes with valuable

information for different stakeholders such as retail investors, researcher institutions and companies interested in listing. Furthermore they tested under pricing in three different time lags; first trading day, five and twenty days after the first trading day. The empirical results reveal that there is under pricing in the Nordic markets and that the price is stable up to one month after the IPO. The results did not find any statistical differences in time lags or in industries.

### **1.1.3 How Profitable Opportunities are Measured**

A firm's financial performance, in the view of the shareholder, is measured by how better off the shareholder is at the end of a period than he was at the beginning and this can be determined using ratios derived from financial statements; mainly the balance sheet and income statement, or using data on stock market prices (Berger & Patti, 2002). These ratios give an indication of whether the firm is achieving the owners' objectives of making them wealthier, and can be used to compare a firm's ratios with other firms or to find trends of performance over time.

Charreaux (1997) in Severin (2002), states that an adequate performance measure ought to give an account of all the consequences of investments, on the wealth of shareholders. The main objective of shareholders in investing in a business is to increase their wealth. Thus the measurement of performance of the business must give an indication of how wealthier the shareholder, has become as a result of the investment over a specific time.

The ratio of profits of the company over shareholder capital employed measures the use of the owners' funds in producing the overall profit of the firm and is given as:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Profit after Tax}}{\text{Equity}}$$

Where equity is the share holders funds at the end of the same period.



Other ratios employed to measure the performance of a firm in relation to shareholders' interests are the dividend rate, which measures the cash return to the shareholder from his investment in the share of the firm, and the market value of the company compared to its book value, which measures the change in shareholders' value of investment. Brockington (1990) gives the dividend payout rate as, Dividend

$$\text{Payout Rate} = \frac{\text{Dividend}}{\text{Share price}} \times 100$$

Where the dividend is the amount of dividend per share and the share price is the nominal price.

The ratio of market value (MV) to book value (BV) of the share denotes how the share has appreciated from the nominal value to the market price, and is expressed as:

$$\text{MV/BV} = \frac{\text{Market value per share}}{\text{Book value per share}}$$

#### **1.1.4 Profitable Opportunities for Retail Investors after an Initial Public Offer (IPOs) in Kenya**

According to Nairobi Security Exchange (NSE) Annual report June 2008 Safaricom Shares were floated at Ksh 5 per share (NSE, 2008). The report also revealed that the first day closing price of the Safaricom share was Ksh 7.35. This is an indication that the offer price of Safaricom share was under-priced by 47%. According to Nairobi Security Exchange (NSE) Annual report June 2006 Kengen shares were floated at Ksh 11.90 per share (NSE, 2006). The annual report also revealed that the first day closing price of Kengen share was Ksh 40. This is an indication that the offer price of Kengen share was under-priced by 236%. According to Nairobi Security Exchange (NSE) Annual report June 2009 (NSE, 2009) Cooperative bank of Kenya share was floated at Ksh 9.50 per share (NSE, 2009). The annual report revealed that the first day closing price of the Cooperative Bank of Kenya share was

Ksh 10.45. This is an indication that the share price of the Cooperative bank of Kenya was under-priced by 10%.

Braun and Larrain (2007) affirm that IPOs do not go unnoticed in emerging markets. They add that IPOs are focal points, particularly if they are listed alone and they can stir the whole market. A single large IPO can have a significant effect in developing countries in general and in particular Kenya, The sheer size of these transactions attracts the attention of small and all big investors such as pension funds and international funds (Tran & Jeon, 2011). In addition, according to Nairobi Security Exchange (NSE) in most IPOs from Kengen, Scangroup, Eveready, Acess Kenya, Safaricom among others, it has been evident that retail investors are the majority and more often than not have to contend with minimal share allocations way below their applications. This is then followed by a rigorous process of seeking from refunds which more often than not leaves many a discouraged lot wishing they had not in the first place plunged into this stock market mania. However studies conducted on retail investors investment challenges in developing countries in general and Kenya in particular are inadequate because they do not exhaustively address the determinants of profitable opportunities for retail investors after an IPO.

Maina (2009) did a survey of eight companies to evaluate how the firm specific determinants selected in the study influence IPO under pricing at the Nairobi Stock exchange. The period of the study was January 2006 to December 2008 which is the period the NSE witnessed a high number of IPO activity. The methodology used is the factor analysis to determine the independent variables to be tested using multiple linear regression analysis at 95% confidence level. Prior studies done in Europe show that age and size are significantly and negatively related to under pricing. On the contrary a positive relationship has been found between under pricing and net earnings in the year before listing. The leverage at IPO is also positively related to under pricing. The results of the study observed that the entire firm specific examined except ownership had an influence in explaining under pricing up to 84.3%. As such these factors affect IPO under pricing. Market return, age, size and

leverage had a negative relationship to under pricing. Size and type had a positive relationship to under pricing.

Chelangat (2011) study focused on short run and long run profitable opportunities for retail investors at the NSE. The study short run performance period was 7 days and 15 days while the long run period was 1 year and 2 year respectively. The overall finding was that there is underperformance of IPOs in the long run taken to be 1 year and 2 year respectively. Cheluget (2008) did a study on investors demand for IPO's and first day performance of shares at the Nairobi securities exchange. The population of study consisted of all quoted companies listed at the Nairobi securities exchange since its inception in 1954. For the analysis the study used regression analysis and correlation analysis. The findings were that there was an increase in 1st day return performance in the Kenyan market by 17.71%. His sample of study were all the shares that were listed at the NSE. This study is different from Cheluget's in that it focuses on the long term performance of the shares listed at the NSE.

Ngahu (2006) in his study on the relationship between pre issue book value per share and the issue price in the short run (1st day trading) price of IPO's following listing at Nairobi securities exchange found out that the book value per share combined with the issue price has a significant relationship with the first trading price. The findings of this study were that the average first day returns to be 22.57%. The major focus of this study was on the pricing of IPO's in the local market to find out if there is under pricing of IPO's. Mukiria (2010) focused on whether there existed a relationship between the offering price and the success of IPO's measured by aftermarket returns. The study predicted a positive relationship between the offering price and the probability of a successful profitable opportunity for investors.

## **1.2 Statement of the Problem**

Investment challenges to retail investors exist in various forms (Busuba, 2006) for instance retail investors are unable to identify various characteristics of IPOs in that IPOs tend to be more underpriced compared to old IPOs (Busuba, 2006).

According to Cheong Chan (2010) empirical findings, the effect of first-day secondary market pricing depends on the hotness of the IPO and thus cold and neutral IPOs should be better priced. However Cheong Chan (2010) concludes that if the hotness of the IPO is defined as open-to-close return rather than by volume, hence retail investors will be more aggressive in their trading.

Furthermore investment challenges exist in the form of IPOs being generally under-priced, the primary market is not fully efficient Cheong Chan (2010). According to Fama (1970) in the efficient market theory, an efficient market should reflect all information available to the public and stocks will be valued at their fair price, which is not the case for the IPO market. To benefit from IPOs investors need to acquire private information about it in order to select the profitable IPOs (Chemmanur et al., 2010). To compensate for the risk to invest in an unknown company as a retail investor, the IPO needs to be under-priced (Chemmanur et al., 2010). In other words, information asymmetry is one of the explanations for under-pricing.

The investment challenge for Kenyan retail investors has been a persistent phenomenon. For example, According to Nairobi Security Exchange (NSE) Annual report June 2008 Safaricom Shares were floated at Ksh 5 per share (NSE, 2008), Kengen shares were floated at Ksh 11.90 per share (NSE, 2006) and Cooperative bank of Kenya share was floated at Ksh 9.50 per share (NSE, 2009). This is an indication that the share price of all the shares was under-priced. Hence this study wishes to address the determinants profitable opportunities for retail investors after an IPO in Kenya.

However studies conducted on retail investors, Chelangat (2011), Ngahu (2006), Ngugi and Njiru (2005), Onyuma (2009) and Owuor, Ngigi, Ouma and Birachi, (2007) show that investment challenges in developing countries in general and Kenya in particular did not address the determinants of profitable opportunities for retail investors after an IPO. In addition the studies did not give in depth assessment between the profitability after IPOs and its causes. In fact there are no comprehensive studies that have been conducted specifically to establish the

determinants that contribute to profitable opportunities available to retail investors after IPOs in Kenya. Hence given that no study of this nature has been done in Kenya, the present study sought to fill the knowledge gap by establishing the determinants of profitable opportunities for retail investors after an initial public offer in Kenya.

### **1.3 Objectives**

#### **1.3.1 General Objective**

The general objective of this study was to assess the determinants of profitable opportunities for retail investors after an initial public offer in Kenya.

#### **1.3.2 Specific objectives**

- i. To find out the effect of industrial performance in Kenya on profitable opportunities for retail investors after IPOs.
- ii. To establish the influence of company's corporate governance in Kenya on profitable opportunities for retail investors after IPOs.
- iii. To determine the effect of economic performance in Kenya on profitable opportunities for retail investors after IPOs.
- iv. To find out the effect of technology in Kenya on profitable opportunities for retail investors after IPOs.
- v. To establish the effect of availability of economic resources in Kenya on profitable opportunities for retail investors after IPOs.

### **1.4 Research Hypotheses**

$H_{01}$ : There is no significant relationship between level of industrial performance and profitable opportunities for retail investors after IPOs in Kenya.

H<sub>02</sub>: There is no significant relationship between company's corporate governance and profitable opportunities for retail investors after IPOs in Kenya.

H<sub>03</sub>: There is no significant relationship between level of economic performance in Kenya and profitable opportunities for retail investors after IPOs.

H<sub>04</sub>: There is no significant relationship between level of technology in Kenya and profitable opportunities for retail investors after IPOs.

H<sub>05</sub>: There is no significant relationship between availability of economic resources in Kenya and profitable opportunities for retail investors after IPOs.

## **1.5 Significance of the Study**

This study adds value to various parties specifically and mutually as discussed below.

### **1.5.1 Potential Investors**

The first beneficiaries of this study were the potential investors interested in IPOs and wanted to explore the investment opportunities in the securities markets. Since IPOs are in general a high risk investment due to the uncertainty associated with the issue, it is a good way for an investor to diversify a portfolio. The study offered the potential investors a variety of alternative investments to bank deposits.

### **1.5.2 Stock brokers and Investment Advisors**

The study also benefited the stock brokers and investment advisors. The intermediaries have a role to play in realization of vibrant stock market. The research made recommendation on key areas that need to be explored to expand stock market. This research helped companies to get an overview of the performance of the IPOs in the stock markets. By reading this study companies can see to what extent if any, under pricing occurs in the securities markets and can make decision based on this

information. For example if a company should decide to go public in a "hot" or "cold" market.

### **1.5.3 Borrowers**

Borrowers can also use information to explore alternative long term financing option instead of depending on short term bank loans. The study highlighted impediments experienced by issuers when dealing with regulators, who in turn sought to put up frame work, which entice potential issuers.

### **1.5.4 Scholars**

The findings of this study may be of value addition to literature review. Therefore, students of finance, public management, governance, information technology, human resource management, and law may find this research finding critical in terms of broadening their minds in this area. On the other hand, the study opens up a way for others researchers to conduct further studies on issues related to effects of initial public offer on creation of profitable opportunities to investors and specifically the retail investors.

### **1.5.5 The Government Policy Makers**

The study findings may be of use to government policy makers and planners as it highlights the various determinants that helped potential retail investors to invest in profitable stocks in the security market. The achievement of Vision 2030 is heavily dependent on the individual empowerment through profitable investments. The findings of this study may guide the national government on how the stock exchange and stock brokers are supposed to offer a level playing field when companies are floating shares especially to retail investors. This can ensure sustainable growth of retail investors, institution structures and achievement of vision 2030.

## **1.6 Scope of the Study**

This study sought to assess the determinants of profitable opportunities for retail investors after an initial public offer in Kenya. Specifically, the study looked at

whether level of industrial performance, company's corporate governance, level of economic performance, availability of economic resources and level of technology determines profitable opportunities for retail investors after IPOs in Kenya. This study focused on all investors from 21 listed stock brokers at the Nairobi Security Exchange. The study was conducted in year 2014, thus, primary data was collected during this period.

### **1.7 Limitations of the Study**

The nature of the study called for confidential information related to the investors. Respondents may feel intruded when requested to complete a questionnaire which requires them to disclose such information. In order to mitigate this short coming the respondents were assured of confidentiality and ethical handling of the information

Financial constraints was a major factor especially getting copies of useful data for the research findings and also when getting investors contacts from the 21 listed brokerage firms. The lack of commitment and adequate response from respondents was expected that it would slow down the research process as planned or scheduled.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter explores the literature that focuses on the area of internal factors affecting initial public offer price. The chapter also commences by reviewing the theories that informed the discussion on initial public offering price in Nairobi securities exchange. It then dwells on the empirical studies and focused on the effect of five selected internal factors of a firm on IPO pricing in Kenya.

#### **2.2 Theoretical Review**

The study was hinged on various theories. These are; The Prospect theory, Signalling theory, Resource based theory, Dow Theory and Random walk theory.

##### **2.2.1 The Prospect Theory**

The theory was developed by Kahneman and Tversky in 1979. It describes how people choose between probabilistic alternatives and evaluate potential losses and gains. The theory is a behavioural economic theory that describes decisions between alternatives that involve risk, where the probabilities of outcomes are known. The theory says that people make decisions based on the potential value of losses and gains rather than the final outcome, and that people evaluate these losses and gains using interesting heuristics. This theory is descriptive as it tries to model real-life choices, rather than optimal decisions.

The theory describes the decision processes in two stages, editing and evaluation. In the first stage, outcomes of the decision are ordered following some heuristic. In particular, people decide which outcomes they see as basically identical, set a reference point and then consider lesser outcomes as losses and greater ones as gains. In the evaluation phase, people behave as if they would compute a value (utility), based on the potential outcomes and their respective probabilities, and then choose

the alternative having a higher utility. The prospect theory explains the role of investor sentiments in IPO pricing. This theory addresses the first objective of the study which was on effect of industrial performance on profitable opportunities for retail investors after IPO.

### **2.2.2 Signalling Theory**

The theory was developed in 1930s and 1940s in the field of evolutionary biology to explain sexual selection where by traits are selected via the pressure of mate selection. Signalling theory is a body of theoretical work examining communication between individuals. The theory was modified in 1973 and applied to behavioural finance field by Michael Spence's. In behavioural finance, Spence defined signalling as the idea that one party (termed the agent) credibly conveys some information about itself to another party (the principal). Michael Spence's developed a job-market signalling model, whereby (potential) employees send a signal about their ability level to the employer by acquiring certain education credentials. The informational value of the credential comes from the fact that the employer assumes it is positively correlated with having greater ability.

Rock (1986) argues that investors in the capital market possess differing levels of quality information, given the missing track record of the firm. Because of information unevenness, extant research has relied on signalling theory for investigating determinants of IPO firm performance (Certo, 2001). Signalling theory postulates that IPO firm managers strive to reveal the firm's value to outsiders through favourable information so as to maximise the share price (Certo, 2001). Firms reveal their value through prospectus to show their potential and growth opportunities

Later behavioural finance researchers among them Leland and Pyle (1977) analyzed the role of signals within the process of IPO. The authors show how companies with good future perspectives and higher possibilities of success "good companies" should always send clear signals to the market when going public (e.g. the owner should

keep control of a significant percentage of the company). To be reliable, the signal must be too costly to be imitated by "bad companies". If no signal is sent to the market, asymmetric information will result in adverse selection in the IPO market.

This theory is relevant to the study because it highlights the investments of the investors. The investors are keen on the growth reported by the firms during the periodic release of IPOs. The theory shows how companies with good future perspectives and higher possibilities of success "good companies" should always send clear signals to the market when going public (e.g. the owner should keep control of a significant percentage of the company). Good financial results posted by firms imply a likely hood of a better dividend per share. This theory addressed the corporate governance variable.

### **2.2.3 Resource Based Theory**

Is a behavioural finance theory which shows that a firm is able to deliver sustainable competitive advantage when resources are managed such a way that their outcomes cannot be imitated by competitors, which ultimately creates a competitive barrier. The theory has its roots strongly tied to the organizational economics work of Penrose (1954), Schumpeter (1934) and even Ricardo (1817). Its perspective focuses on the internal resources of the firm as the major determinants of competitive success (Wernerfelt, 1984; 1994). Mahoney and Pandian (1992) used this theory to classify firm resources into categories of land and equipment, labour (workers capabilities and knowledge) and capital (both tangible & intangible).

The resource based theory of the firm postulates that a firm nurtures resources to differentiate itself from its competitors. This theory complements the signalling theory (Daily, 2004). IPO firms during the book building process strive to induce institutional investors and investment banks that it merits investing in its shares. According to the resource based theory, the resources held by any firm are heterogeneous and differ from those held by competitors. This heterogeneity is believed to be responsible for the variability in financial performance across firms.

Resource Based theory explains that a firm's sustainable competitive advantage is reached by virtue of unique resources being rare, valuable, inimitable, non-tradable, and non-substitutable, as well as firm-specific. The theory identifies several barriers to imitations of resources which include corporate culture, managerial capabilities and property rights. Based on this theory the degree to which the decision makers understand the relationship between organizational inputs and outputs is what creates a competitive advantage and the inability of the competitors firm to understand what causes superior performance is what helps to reach a sustainable competitive advantage for the one who is currently performing at superior level. This theory is relevant to the study as it explains the role of board of directors in IPO pricing. This theory addressed the economic resources variable.

#### **2.2.4 Dow Theory**

The Dow Theory on stock price movement is a form of technical analysis that includes some aspects of sector rotation. The theory was derived from 255 Wall Street Journal editorials written by Charles Dow (1851-1902), journalist, founder and first editor of the Wall Street Journal and co-founder of Dow Jones and Company. Following Dow's death, William Peter Hamilton, Robert Rhea and George Schaefer organized and collectively represented Dow Theory, based on Dow's editorials. Dow himself never used the term Dow Theory nor presented it as a trading system. The six basic tenets of Dow Theory as summarized by Hamilton, Rhea, and Schaefer are described below.

**The market has three movements:** (1) The "main movement", primary movement or major trend may last from less than a year to several years. It can be bullish or bearish. (2) The "medium swing", secondary reaction or intermediate reaction may last from ten days to three months and generally retraces from 33% to 66% of the primary price change since the previous medium swing or start of the main movement. (3) The "short swing" or minor movement varies with opinion from hours

to a month or more. The three movements may be simultaneous, for instance, a daily minor movement in a bearish secondary reaction in a bullish primary movement.

**Market trends have three phases:** Dow Theory asserts that major market trends are composed of three phases: an accumulation phase, a public participation (or absorption) phase, and a distribution phase. The accumulation phase (phase 1) is a period when investors "in the know" are actively buying (selling) stock against the general opinion of the market. During this phase, the stock price does not change much because these investors are in the minority demanding (absorbing) stock that the market at large is supplying (releasing). Eventually, the market catches on to these astute investors and a rapid price change occurs (phase 2). This occurs when trend followers and other technically oriented investors participate. This phase continues until rampant speculation occurs. At this point, the astute investors begin to distribute their holdings to the market (phase 3).

**The stock market discounts all news:** Stock prices quickly incorporate new information as soon as it becomes available. Once news is released, stock prices will change to reflect this new information. On this point, Dow theory agrees with one of the premises of the efficient market hypothesis.

**Stock market averages must confirm each other:** In Dow's time, the US was a growing industrial power. The US had population centres but factories were scattered throughout the country. Factories had to ship their goods to market, usually by rail. Dow's first stock averages were an index of industrial (manufacturing) companies and rail companies. To Dow, a bull market in industrials could not occur unless the railway average rallied as well, usually first. According to this logic, if manufacturers' profits are rising, it follows that they are producing more. If they produce more, then they have to ship more goods to consumers. Hence, if an investor is looking for signs of health in manufacturers, he or she should look at the performance of the companies that ship the output of them to market, the railroads. The two averages should be moving in the same direction. When the performances of the averages diverge, it

is a warning that change is in the air. Both Barron's Magazine and the Wall Street Journal still publish the daily performance of the Dow Jones Transportation Index in chart form. The index contains major railroads, shipping companies, and air freight carriers in the US.

**Trends are confirmed by volume:** Dow believed that volume confirmed price trends. When prices move on low volume, there could be many different explanations. An overly aggressive seller could be present for example. But when price movements are accompanied by high volume, Dow believed this represented the "true" market view. If many participants are active in a particular security, and the price moves significantly in one direction, Dow maintained that this was the direction in which the market anticipated continued movement. To him, it was a signal that a trend is developing.

**Trends exist until definitive signals prove that they have ended:** Dow believed that trends existed despite "market noise". Markets might temporarily move in the direction opposite to the trend, but they will soon resume the prior move. The trend should be given the benefit of the doubt during these reversals. Determining whether a reversal is the start of a new trend or a temporary movement in the current trend is not easy. Dow Theorists often disagree in this determination. Technical analysis tools attempt to clarify this but they can be interpreted differently by different investors. This theory addressed the dependent variable which was profitable opportunities for retail investors.

### **2.2.5 The Random Walk Theory**

In the case of Random walk, the stock market context does not mean, neither should it be taken to imply, that the price movements are whimsical and chaotic (Mlambo, 2003). All it means is that period-to-period price changes should be statistically independent and unforecastable if they are properly anticipated. Price movements are a perfectly rational response to information but since there is no reason to expect new

information to be non-random, price changes based on this information is supposed to be random and uncorrelated to any observable trend (Fama, 1970).

The theory argues that the share price movements are independent of one another and unrelated. This happens in an efficient market where the current prices of securities represent unbiased estimates of their intrinsic values. The random theory holds that the prices move in a random manner hence, it is not possible to predict future prices. The price movement, whether up or down, occurs as a result of new information and since investors cannot predict the kind of new information (whether good or bad), it is not possible to predict future price movement.

The random walk theory clearly conflicts with technical analysis. The theory says that previous price changes or changes in returns are useless in predicting future prices, which implies that the work of a technical analyst is unnecessary. According to Fisher & Jordan (1995); Mlambo (2003) the random walk theory is a special case of a more general efficient market hypothesis and the two positions complement each other.

Lumby (1994) asserts that the theory of market efficiency and stock prices behaviour is inseparable. In Lumby (1994), the efficient market has been defined as a market where prices of a company's shares (or other financial securities) rapidly and correctly reflect all relevant information as it becomes available. No undervalued securities exist in such a market hence, the share prices can be relied upon to correctly reflect the true economic worth of the shares. Jensen (1978) points out that a market is efficient with respect to information if it is impossible to make abnormal economic profits by trading on the basis of that information. This theory addressed the technology variable.

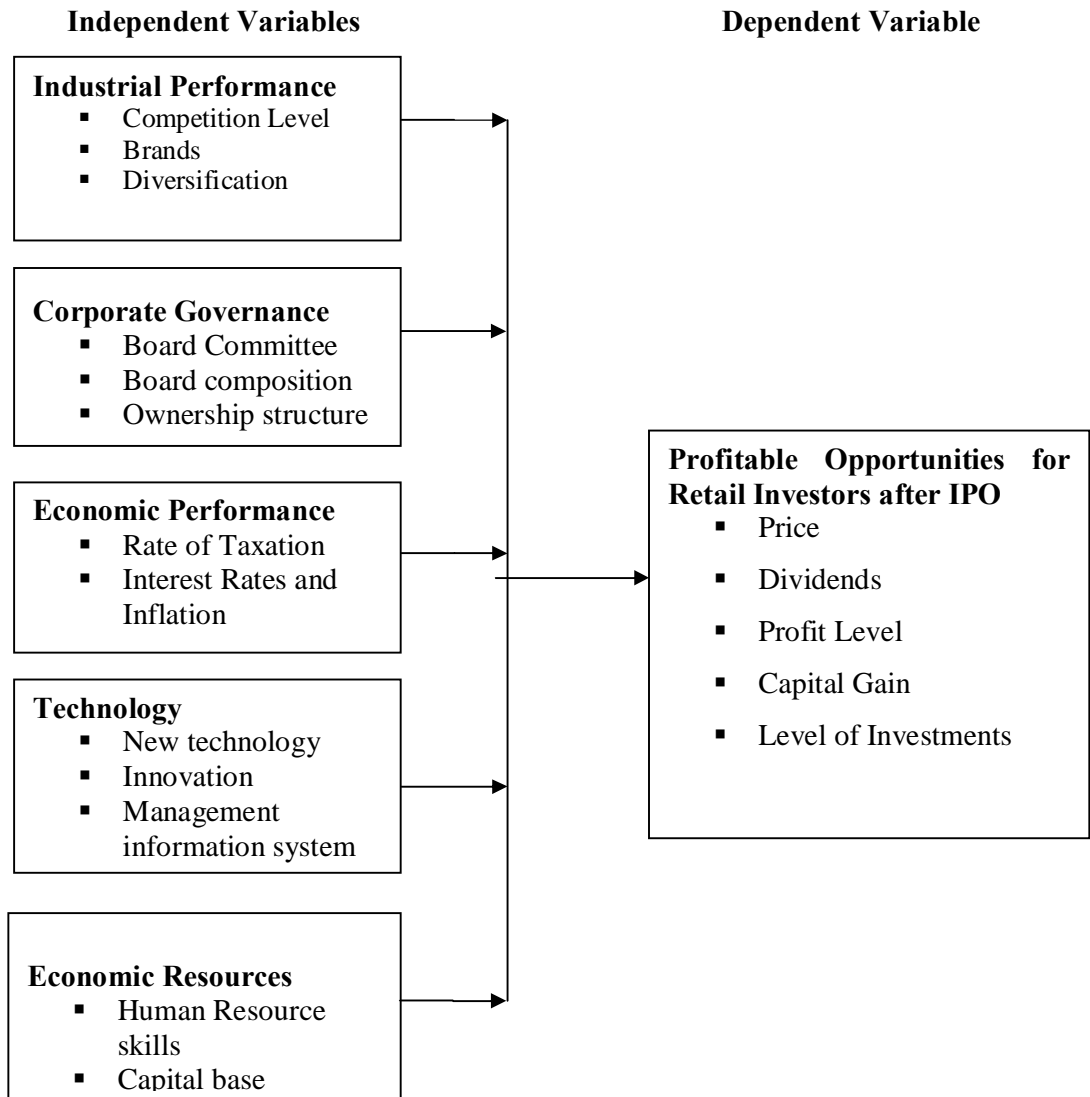
### **2.3 Conceptual Framework**

Kombo and Tromp (2009), define a concept as an abstract or general idea inferred or derived from specific instances. The scholars further define a conceptual framework

as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. The goals of a conceptual framework are threefold. Firstly, to describe existing practice, secondly, to prescribe future practice; and thirdly, to define key terms and fundamental issues. A conceptual framework aims to broadly define a number of key terms and concepts that can be used in identifying and debating the issues. The dependent variable is the variable that the researcher wishes to explain and is also called the criterion or predictor variable (Kothari, 2009).

Kothari (2009) defines an independent variable also known as the explanatory variable as the presumed cause of the changes of the dependent variable, while a dependent variable refers to the variable which the researcher wishes to explain. The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them. Such a framework would help researchers define the concept, map the research terrain or conceptual scope, systematize relations among concepts, and identify gaps in literature (Creswell, 2003). Below is a figurative representation of the variables to be explored by this study.





**Figure 2.1: Conceptual Framework**

## **2.4 Empirical Review**

This section reviews literature from prior scholars regarding the determinants of profitable opportunities for retail investors after an initial public offer from various contexts.

### **2.4.1 Industrial Performance and Profitable Opportunities for Retail Investors after Initial Public Offer**

Extant research shows that firm size has a significant impact on IPO pricing. Ritter (1984) argue that larger firms are easier to value because of ease of forecasting cash flows. The under pricing phenomenon in IPO literature which has been widely debated on in extant research is to a great extent hinged on information asymmetry among investors. According to Rock (1986), to lure relatively uninformed investors, investment bankers under price IPOs to cushion against potential losses experienced by uninformed investors due to Winner' s curse.

An and Chan (2008) posit that greater uncertainty of the firms value encourage investors to demand for lower IPO price as an incentive for risk. Teker and Ekit (2003) posit that a firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price. 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.

Baker and Wurgler (2007) defines investorsøsentiments as a belief about future cash flows and investment risks that is not justified by the facts at hand. A widely used measure of investor sentiment is the performance of stock market index prior to the offering. Baker and Wurgler (2007) observe that investor sentiment is a belief about future cash flows and investment risks that is not justified by the facts at hand. Behavioural finance literature shows that investor sentiment results from noise trader sentiment where noise traders suffer a sequence of psychological biases such that their trading behaviour cannot be explained by rational expectation theory (Barberis,

Huang and Thaler, 2006). Behavioural biases have become popular for explaining asset pricing that are inconsistent with a rational decision-making framework (Cornelli, 2005). According to Brown and Cliff (2005) excessive optimism drives asset values above fundamental.

Baker and Wurgler (2007) observed real investors and markets are too complicated to be neatly summarized by a few selected biases and trading frictions. They observed that many bottom up models lead to a similar reduced form of variation over time in mass psychology and certainly none is uniquely true. They advocated for a "top down" approach tried to explain which stocks are likely to be most affected by sentiment, rather than simply pointing out that the level of stock prices in aggregate depend on sentiments.

Hong and Stein (2006) advocated for a "bottom up" approach which relied on biases in individual investors psychology such as over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals and concluded that behavioural biases have become popular for explaining asset pricing that are inconsistent with rational decision making framework.

Ljungqvist (2004) argue that investors are willing to pay premium in excess of their rational belief if sentiment is biased towards newly issued stocks. Ljungqvist, Nanda, and Singh (2003) also agree that investor sentiment affects the pricing of IPO, but posit that since noise traders are wealth constrained, the issuer must price IPO below the price noise traders are ready to pay to induce informed investors. According to Baker and Wurgler (2007), stocks of low capitalised, younger and growing firms are prone to investor sentiment because they are harder to arbitrage and are difficult to value, thus increasing chances of improper valuation.

#### **2.4.2 Company's Corporate Governance and Profitable Opportunities for Retail Investors after Initial Public Offer**

Following the bankruptcy of Enron in 2001, the effectiveness of board of directors has become a debatable issue. According to Gillan and Martin (2007) the bankruptcy of Enron was as a result of failure by the firm's board to understand risks associated with the firm's strategy coupled with conflicts of interests to execute their role as monitors. According to Daily (2005) outside board member is a prestigious assignment. Certo (2001) argue that IPO firm gains legitimacy through prestigious board of directors. According to Dalton (2003) directors holding additional board positions possess exposure benefits. Korn and Baum (1999) argue that directors' association with other companies via board service enhance the prestige of the IPO firm.

According to Shivdasani (1993) prestigious board is a signal of effective control and enhances the value of the firm going public. Davis and Mizruchi (1999) argue that board prestige is an important signal to potential investors. Jensen (1993) posits that board of directors play a crucial role in internal control systems of the firm. Effective control has the effect of enhancing value of the firm and hence higher offer price. Daily (2005) argue that where an IPO firm possesses prestigious board, the underwriter is likely to offer a narrow offer price band and a higher offer price.

According to OECD (2004), corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring (OECD, 2004).

Elliot argues that the public interest responsibilities of the exchange create special corporate governance needs. Investors need the implementation of rigorous corporate governance principles in order to assure improved performance of their businesses. That includes the composition of the Board of Directors and key committees, the reporting and financial filing requirements for the exchange ó including annual reporting or self assessments made to the regulator and additional disclosure to shareholders regarding the regulatory activities (OECD,2002).

There are several studies in the literature that relate corporate governance to the enterprise's market value or its performance. Drobetz et al. (2006) surveyed some of these studies. For example, there is the study of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) that shows that better shareholder protection is associated with higher valuation of corporate assets. The study uses a sample of developed companies, using firm-level data. Gompers, Ishii, and Metrick (2003) and Bebchuk, Cohen, and Ferrell (2004) use country level evidence from the United States. Bauer, Günster, and Otten (2004) use the Deminor Corporate Governance Ratings for companies included in the FTSE Euro top 300 index and document that higher ratings are associated with higher stock returns and higher firm valuations.

#### **2.4.3 Level of Economic Performance and Profitable Opportunities for Retail Investors after Initial Public Offer**

Enisan and Olufisayo (2009) examined the long run and causal relationship between stock market development and economic growth for seven countries in sub-Saharan Africa. They found that the stock market development is co integrated with economic growth in Egypt and South Africa suggesting that stock market development has a significant positive long run impact on economic growth. Based on these results, Enisan and Olufisayo argued that stock markets could help promote growth in Africa. However, to achieve this goal, African stock markets need to be further developed through appropriate regulatory and macroeconomic policies.

This rapid development of stock markets in Africa does mean that even the most advanced African stock markets are mature. For example, Vitali and Mollah (2011) investigated the weak-form of market efficiency in Africa by testing the random walk hypothesis (RWH) on the daily price indices of Egypt, Kenya, Mauritius, Morocco, Nigeria, South Africa and Tunisia over the period of 1999 to 2009. The empirical results reject the RWH for all stock markets indices over the whole sample period with the exception of South Africa over the second sub-period (2007 to 2009). Hence, only South Africa may be regarded as a weak-form efficient market. Rejection of the RWH in the African stock markets indicates that stock prices do not fully reflect all historical information. These markets should therefore undergo technological and regulatory modernization in order to improve informational efficiency.

Smith et al. (2002) identified four categories of formal stock market in Africa as South Africa, medium-sized markets, small new markets which have experienced rapid growth, and small new markets which have yet to take off. Enisan and Olufisayo (2009) examined the long run and causal relationship between stock market development and economic growth for seven countries in sub-Saharan Africa. They found that the stock market development is co integrated with economic growth in Egypt and South Africa suggesting that stock market development has a significant positive long run impact on economic growth. Based on these results, Enisan and Olufisayo (2009) argued that stock markets could help promote growth in Africa. However, to achieve this goal, African stock markets need to be further developed through appropriate regulatory and macroeconomic policies.

Ferson (2010) reviewed literature on investment performance evaluation and summarized the significant forces and contributions that have brought this field of research to its current state of knowledge while Aragon and Ferson (2007) provided a review of the methods for measuring portfolio performance and the evidence on the performance of professionally managed investment portfolios. Dybvig et al. (2010) analysed the optimal contract for a portfolio manager who can exert effort to improve

the quality of a private signal about future market prices. They assumed complete markets over states distinguished by asset payoffs and place no restrictions on the form of the contract. They showed that trading restrictions are essential because they prevent the manager from undoing the incentive effects of performance-based fees and provided conditions under which simple benchmarking emerges as optimal compensation.

According to Mensah (2003), tests generally support weak-form efficiency (i.e. past prices cannot be used to predict future prices). Few portfolio managers are able to beat the market and do not do so with any consistency. Aragon and Ferson (2007) discussed evidence from conditional performance evaluation such as survivorship which creates a number of potential problems affecting both the average levels of performance and the apparent persistence in performance. Much of the empirical evidence on performance persistence for mutual funds suggests a positive relation between the future and past performance, and concentrate in the poorly performing funds. Poor performance may be persistent. Del Guercio and Tkac (2002) found that mutual fund investors pay more attention to simple measures of relative return than to more complex measures like alpha, in directing their new money flows.

Arango (2002) found that some evidence of the nonlinear and inverse relationship between the share prices on the Bogota stock market and the interest rate as measured by the inter bank loan interest rate, which is to some extent affected by monetary policy. The model captures the stylized fact on this market of high dependence of returns in short periods. These findings do not support any efficiency on the main stock market in Colombia. Hsing (2004) adopts a structural VAR model that allows for the simultaneous determination of several endogenous variables such as, output, real interest rate, exchange rate, the stock market index and found that there is an inverse relationship between stock prices and interest rate.

Zordan (2005) said that historical evidence illustrates that stock prices and interest rates are inversely correlated, with cycles observable well back into the 1880s;

more relevant to the period subsequent to World War II. From the late 1940s to the mid 1960s, inflation was low, and interest rates were both low and stable. Stocks did well during this period, both in nominal and real terms. The inverse relationship between interest-sensitive asset classes like stocks, bonds, and real estate and commodity prices has been known through history. That relationship can be observed in the 1877 to 1906 cycle, the 1906 to 1920 cycle, the 1920 to 1929 cycle, the 1929 to 1949 cycle, and the 1949 to 1966 cycle.

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

#### **2.4.4 Technology and Profitable Opportunities for Retail Investors after Initial Public Offer**

The extant empirical evidence on the positive relation between board composition and performance, however, has been mixed, both for IPO firms as well as more seasoned corporations (Dalton et al., 1998; Baker & Gompers, 2003). The ambiguous results can be partly attributed to the tradeoff between the benefits from the presence of outside directors such as more effective monitoring and control, greater objectivity, and assistance in resource acquisitions versus the benefits provided by inside directors such as detailed knowledge of the firm's operations, customer requirements, and technology that in turn can help the strategic planning process. Viewed through the innovation and technology prism, high technology Internet IPO firms may actually benefit more from in-depth technological knowledge, expertise, commitment, and innovative thinking that insiders bring to the board, rather than from the monitoring and control benefits provided by outside directors.



Zahra (1996) points out that boards comprised of a higher proportion of insiders may be more innovative and better positioned to serve management as knowledgeable sounding boards in the formulation of strategy. Further, since high technology Internet firms are unlikely to generate substantial free cash flows in the period immediately after the IPO, the potential for wasteful expenditure is lower, and therefore, the benefits of monitoring and control provided by outsiders is less likely to be substantive. If there is a greater need for creative thinking and decision-making in high technology knowledge-based industries that only insiders are uniquely qualified to provide, we expect a negative relation between the proportion of outsiders on the board and the probability of profitability and a positive relation with time-to-profitability.

Guiso and Jappelli (2005), provide evidence that lack of awareness affect stock market participation. The determinants of awareness, and they reveal the probability that survey respondents are aware of stocks, mutual funds and investment accounts is positively correlated with education, household resources, long-term bank relations and proxies for social interaction, and concluded that lack of financial awareness has important implications for understanding the stockholding puzzle and for estimating stock market participation costs. Trust and awareness might be positively correlated but affect stock market participation via two different channels. Awareness serves to reduce barrier of knowledge of the available assets. Mistrust tends to lower the expected return from an investment given that individuals need to take into account the possibility that a contract will not be respected by the counterpart.

#### **2.4.5 Economic Resources and Profitable Opportunities for Retail Investors after Initial Public Offer**

By committing to investing in socially responsible manner, social investors want, above all, to know whether the different investment products to be selected are in line with their values (Pivo, 2005). This basic assertion is however not shared by all authors in the socially responsible investing area. Lewis and Mackenzie (2000) were

among the first to question this simplistic approach, through a quantitative study. Based on a sample of 1146 ethical investors in Britain, they explore the impact of the exclusion of certain companies in their portfolios. This example is quite instructive on whether moral commitment, rather than economic incentives, is the engine of economic decision. These authors find that ethical investors are neither "devils" nor "saints" and can be both value-laden ethical and unethical. Thus, Lewis and Mackenzie indicate that people are willing to put their money where their morality is even though a direct link between money and principles may not exist. The findings of this study are supported by the research of Webley et al. (2001) who explore, through an experimental approach, the issue of the commitment of ethical investors. They find that ethical investors generally remain invested in ethical investment funds even when they perform badly. In the same vein, Lewis (2001) uses a qualitative methodology (focus group) and puts forward the idea of moral dilemma; many investors called "ethical investors" are investing in both ethical and unethical funds. Glac (2009) indicates the results of most of these studies show that ethical investors are also as interested in the financial performance of their investments as conventional investors (Cullis et al. 1992; Lewis & Mackenzie, 2000a, b; Mackenzie & Lewis, 1999; Rosen et al., 1991).

Companies are certainly nervous about hiring executives without educational experience, but they're also apprehensive about hiring managers directly from colleges and other nonprofit organizations for reasons they generally feel should be obvious. Namely, nonprofit executives tend not to appreciate the dynamics of making a profit. While this is a generalization that often proves inaccurate, it is equally matched by a tendency for those executives with backgrounds in higher education to minimize the challenges faced by emerging businesses (Haberman, 2001).

Because the combination is so rare, many for-profit social entrepreneurs build their teams by bringing together people from each side. However, this approach also has its challenges. Attracting people with skills valued in the business world can be

difficult. In practice, the financial rewards available in a for-profit social venture may be better than those in typical nonprofit or government jobs, but they are generally still going to be less than those associated with traditional for-profit ventures. At the same time, individuals with the necessary social sector skills may be skeptical of the profit motive and thus more comfortable in a nonprofit or public sector environment. Even if social entrepreneurs can attract strong mixed teams, managing cultural differences may be difficult. Business-oriented employees are generally more used to taking risks, working in fast-paced environments, and setting clear, measurable goals and objectives. Individuals from the social sector are often more consensus-driven, passionate about a particular cause, and focused on responding to needs rather than anticipating or creating them. Establishing a culture and operating environment that values and thus successfully retains employees from both of these worlds is no easy task (Flannery & Deiglmeier, 1999).

## **2.5 Critique of Existing Literature**

Bubere and Shihab (2012) conducted a study to investigate if retail investors have profitable opportunities in the Nordic markets. The authors found from previous research on Initial Public Offerings (IPOs) that they have documented abnormal returns and they made the assumption that if abnormal returns exists, there are profitable opportunities for retail investors and thus they wanted to contribute with up-to date research to help retail investors make a better investment choice in the Nordic markets. Furthermore they tested under pricing in three different time lags; first trading day, five and twenty days after the first trading day. The empirical results reveal that there is under pricing in the Nordic markets and that the price is stable up to one month after the IPO. The results did not find any statistical differences in time lags or in industries. The above study was conducted through a quantitative cross-sectional study on 68 IPOs from the years 2005 to 2011 in the Nordic markets which is an emerging country. The study was also analyzed by use of secondary data which was in a panel data. This current study was conducted in a developing country and used primary data for analysis.

Maina (2009) did a survey of eight companies to evaluate how the firm specific determinants selected in the study influence IPO under pricing at the Nairobi Stock exchange. The period of the study was January 2006 to December 2008 which is the period the NSE witnessed a high number of IPO activity. The methodology used is the factor analysis to determine the independent variables to be tested using multiple linear regression analysis at 95% confidence level. The results of the study observed that the entire firm specific examined except ownership had an influence in explaining under pricing up to 84.3%. As such these factors affect IPO under pricing. Market return, age and leverage had a negative relationship to under pricing. Size and type had a positive relationship to under pricing. The finding from above study was only limited to evaluate how the firm specific determinants selected in the study influence IPO under pricing. The study looked at five variables as possible determinants of IPO under pricing. The current study evaluated the determinants of profitable opportunities for retail investors after the initial public offer in Kenya.

Chelangat (2011) study focused on short run and long run of profitable opportunities for retail investors at the NSE. The study short run performance period was 7 days and 15 days while the long run period was 1 year and 2 year respectively. The overall finding was that there is underperformance of IPOs in the long run taken to be 1 year and 2 year respectively. Chelugot (2008) did a study on investors demand for IPO's and first day performance of shares at the Nairobi securities exchange. The population of study consisted of all quoted companies listed at the Nairobi securities exchange since its inception in 1954. For the analysis the study used regression analysis and correlation analysis. The findings were that there was an increase in 1st day return performance in the Kenyan market by 17.71%. His sample of study were all the shares that were listed at the NSE. The current study was different from above study in that it focused on the long term performance of the shares listed at the NSE.

Ngahu (2006) in his study of the relationship between pre issue book value per share and the issue price in the short run (1st day trading) price of IPO's following listing at Nairobi securities exchange found out that the book value per share combined with

the issue price has a significant relationship with the first trading price. The findings of this study were that the average first day returns to be 22.57%. The major focus of this study was on the pricing of IPO`s in the local market to find out if there was under pricing of IPO`s. Mukiria (2010) focused on whether there existed a relationship between the offering price and the success of IPO`s measured by aftermarket returns. The study predicted a positive relationship between the offering price and the probability of a successful profitable opportunity for investors. The current study was different from above studies in that it focused on the determinants of profitable opportunities for retail investors after an initial public offer in Kenya.

## **2.6 Chapter Summary**

The above chapter reviewed the various theories that explain the independent and dependent variables. The reviewed theories are then critiqued for relevance to specific variables. The chapter also explored the conceptualization of the independent and the dependent variables by analyzing the relationships between the two set of variables. In addition, an empirical review was conducted where past studies both global and local were reviewed in line with the following criteria, title, scope, methodology resulting into a critique. It is from these critiques that the research gap was identified.

## **2.7 Research Gap**

A critical review of past literature show that several conceptual and contextual research gaps existed in the determinants of profitable opportunities for retail investors after an initial public offer in Kenya. For instance, the studies by Tran and Jeon (2011), studying the US market, evidence was found that there a relationship between IPO activities and macroeconomic conditions existed. Empirical studies show that stock market performance and volatility were the most crucial factors affecting the timing of IPOS. While the Fed funds rate and the 10-year US Treasury Bond (TB) yield play a significant role in determining the amount of proceeds raised in these IPOs. They found that stock market performance as a factor dominated all

others in explaining the timing of going public. The reason was that when the stock market was performing well, there would be a higher probability of being able to attract investors and thus also lead to higher stock returns. Entrepreneurs took advantage of better stock market performance to bring their company public due to this fact. For example, a study by Daily (2005) shows that more than 773 firms went public in the United States between 1996 and 1997.

Davis and Kirulak (2005) studied the Japanese IPO market and found that when there is a high demand there is a positive and significant relationship between underwriter reputation and the level of under pricing. Corwin and Schultz (2005) found that a large syndicate particularly more co-managers leads to an increased analysts coverage resulting in less under pricing and more accurate offer prices. Barzel et al (2006) found that syndicates are an institutional arrangement designed to avoid wealth transfer from the issuing company to the investors.

The local studies conducted on retail investors such as Chelangat (2011), Ngahu (2006), Ngugi and Njiru (2005), Onyuma (2009), Mlambo (2003), Michael, and Robert (1988) and Owuor, Ngigi, Ouma and Birachi, (2007) show that investment challenges in developing countries in general and Kenya in particular did not address the determinants of profitable opportunities for retail investors after an IPO. In addition the studies did not give in depth assessment between the profitability after IPOs and its causes. In fact there are no comprehensive studies that have been conducted specifically to establish the determinants that contribute to profitable opportunities available to retail investors after IPOs in Kenya. Hence given that no study of this nature has been done in Kenya, the present study sought to fill the knowledge gap by establishing the determinants of profitable opportunities for retail investors after an initial public offer in Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter provides details about the methodology adopted to assist in achieving the research objectives. According to Newing (2011), a research methodology is concerned with what you will actually do in order to address the specific objectives and research questions you have developed. People often equate 'methodology' with the list of individual methods that are used – questionnaires, semi-structured interviews and so on. However the methodology must also include an overall strategy that fits all the different methods together into a coherent design. This involves deciding on a research design structure, choosing the specific methods and developing a sampling strategy. It often also involves describing what analyses was carried out. This chapter outlines the methodology used to capture the data for the research. Methodology is a related set of assumptions that reflect how a researcher views reality and how this reality is articulated through research. Choice of method is reflective of what the researcher wants to uncover. This chapter covered research design incorporating type of research, population, sampling technique, sample size, instruments, pilot test and data analysis.

#### **3.2 Research Design**

A research design is the structure of research. Orodho (2003) defines it as the scheme outline or plan that is used to generate answers to research problems. Newing (2011) states that the term 'research design' is used both for the overall process described above (research methodology) and also, more specifically, for the research design structure. The latter is to do with how the data collection is structured. According to Lavrakas (2008), a research design is a general plan or strategy for conducting a research study to examine specific testable research questions of interest.

A descriptive survey design and correlational design was utilized in this study. Sekaran and Bougie (2011) says that a descriptive study is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation. According to Yang (2008) descriptive survey focuses on the research design and is concerned with addressing the particular characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes. As such they do not share the emphasis in analytic designs upon control but they do share a concern to secure a representative sample of the relevant population. This is to ensure that any subsequent assessments of the attributes of that population are accurate and the findings are generalizable in other words, they have population validity (John & Johnson, 2002).

### **3.2.1 Research Philosophy**

A research philosophy is a way of thinking about and conducting a research. It is not strictly a methodology, but more of a philosophy that guides how the research is to be conducted (Gliner & Morgan 2000). Research philosophy comprises various factors such as individual's mental model, researcher's way of seeing thing, different perceptions, variety of beliefs towards reality, etc. This concept influences the beliefs and value of the researchers, so that one can provide valid arguments and terminology to give reliable results.

This study adopted the concept of positivism research philosophy which is directly associated with idea of objectivism. In this kind of philosophical approach, researchers give their viewpoint to evaluate social world with the help of objectivity in place of subjectivity (cooper & Schindler, 2006). According to this philosophy, researchers are interested to collect general information and data from a large social sample instead of focusing details of research. According to this position, researcher's own belief has no value to influence the research study. The positivism philosophical approach is mainly related with the observations and experiments to collect numeric data (Smith et al, 2006)



### **3.3 Target Population**

Burns and Grove (2003) states that population includes all elements that meet certain criteria for inclusion in a study. Target population consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the results of their research while accessible population consists of all the individuals who realistically could be included in the sample (Borg & Gall, 2007). Newing (2011) describes a population as the set of sampling units or cases that the researcher is interested in. According to Kothari (2004), a population refers to all items in any field of inquiry and is also known as the 'universe'

This study comprised of 21 units of analysis which are the listed stock brokerage firms at the Nairobi Security Exchange, from which the target and accessible population was drawn as indicated in Appendix III. The study population which represent unit of observation comprised of all the 280,246 retail investors in the 21 listed firms as listed on Appendix IV. This implies that the researcher studied all 21 listed brokerage firms where the targeted population was all the 280,246 retail investors who were active in a period of five years (2010- 2014).

### **3.4 Sampling Frame**

A sampling frame is a list of population from which a sample is drawn (Leary, 2001). It is the source material or device from which list of all elements within a population that can be sampled is drawn (Särndal, Swensson & Wretman, 1992) and may include individuals, households or institutions. It is a published list in which or a set of directions for identifying a population (Gall, Gall & Borg, 2007). Jessen (1978) highlights its importance based on features such as single representation of each and every element, numerical identifiers, contact information, maps, location and other relevant information presented in a logical and systematic fashion and exclusion of elements outside the population of interest (Sapsford & Jupp, 2006). Examples in real life would be electoral registers, attendance registers and so on.

A sampling frame facilitates formation of a sampling unit that refers to one member

of a set of entities being studied which is the material source of the random variable (Bailey, 2008; Klaus & Oscar, 2008; Cochran, 1977 and Sarndal, Swensson & Wretman, 1992). Common examples of a unit would be a single person, animal, plant, or manufactured item that belongs to a larger collection of such entities being studied.

For the purpose of this study, the sampling frame for the target population was the retail investors' data base of all the 21 listed stock brokerage firms in the Nairobi Securities Exchange (NSE) as listed on Appendix IV. The sampling frame therefore for the target population was the number of all investors in the listed stock brokerage firms.

### **3.5 Sampling Design**

A sample design is the architecture or the strategy used to select study participants or respondents (Kothari, 2004). Sampling refers to the systematic selection of a limited number of elements out of a theoretically specified population of elements. The rationale is to draw conclusions about the entire population. According to Kothari (2004), the ultimate test of a sample design is how well it represents the characteristics of the population it purports to. The reason for sampling in this study was to lower cost, accessibility of study population and the greater speed of data collection. This study used simple random sampling method on all the investors from the 21 listed firms. Simple random sampling was done to identify individual respondents who were issued with a questionnaire to respond to research statements.

According to Kombo and Tromp (2009) simple random sampling was used because it ensured a greater statistical efficiency and reduced sampling error. Kothari (2004) supports random sampling as it satisfies the law of statistical regularity –if a sample is chosen at random, on average it has the same characteristics and composition as the population.

### 3.6 Sample Size

Kombo and Tromp (2009) and Kothari (2004) describe a sample as a collection of units chosen from the universe to represent it. Marczyk, Dematteo, Festinger (2005) and Yang (2008) defined a sample as subset of the population to be studied. Sampling is the selection of a subset of individuals from within a population to yield some knowledge about the whole population, especially for the purposes of making predictions based on statistical inference (Scott & Wild, 1986; Black, 2004; 2011). Its main advantages are cost, speed, accuracy and quality of the data (Ader, Mellenbergh, & Hand, 2008). The sampling process comprises of defining the population, sampling frame, sampling method, sample size and sample plan (Lavrakas, 2008).

The combined population of all investors in the listed firms is more than five hundred thousand. According to Mugenda and Mugenda (2003) and Kothari (2004) a population of more than ten thousand potential sampling units is called a large population and therefore this study has a target as well as accessible population of more than ten thousand cases and can be defined as a large population. Mugenda and Mugenda (2003) and Gay (1981) recommend a formula for determining a final population for a large population which is assumed to be normally distributed at a confidence interval of 95% or significance interval of 5%. Based on the formula below the minimum target sample for a large population was 384 cases.

The sample for a large population was determined using the formula given as;

$$n=Z^2*p*(1-p)/d^2$$

Where:

n = Sample size for large population

Z = Normal distribution Z value score, (1.96)

p = Proportion of units in the sample size possessing the variables under study, where for this study it was set at 50% (0.5)

d = Precision level desired or the significance level which was 0.05 for the study

The substituted values in determining the sample size for a large population are as follows.

$$n = \frac{(1.96)^2 * (0.5)(0.5)}{(0.05)^2} = 384$$

The target sample of 384 respondents was distributed using the market share index of the listed firms. The ratio used was based on actual data and distribution and hence it is neutral and unbiased.

### **3.7 Data and Data Collection Instruments**

This study used both primary and secondary data. Data collection tools used were the questionnaires. Data was analyzed quantitatively and qualitatively, presented descriptively and illustrated by use of tables and charts. Kothari (2004) defines a questionnaire as a document that consists of a number of questions printed or typed in a definite order on a form or set of forms. According to Dawson (2002), there are three basic types of questionnaires; closed ended, open-ended or a combination of both. Closed-ended questionnaires are used to generate statistics in quantitative research while open-ended questionnaires are used in qualitative research, although some researchers quantify the answers during the analysis stage. Obtaining data from participants with different methods and experience helps prevent information bias and thus increasing credibility regarding the information collection (Louis, Lawrence & Morrison, 2007).

Mugenda and Mugenda (2003) and Kothari (2004) agree that questionnaires have various merits like; there is low cost even when the universe is large and is widely spread geographically; it is free from the bias of the interviewer; answers are in respondents' own words; respondents have adequate time to give well thought out answers; respondents who are not easily approachable can also be reached conveniently; large samples can be made use of and thus the results can be made more dependable and reliable.

According to Kothari (2004), the main demerits of questionnaires are; low rate of return of the duly filled in questionnaires; bias due to no-response is often indeterminate; it can be used only when respondents are educated and cooperating; the control over questionnaire may be lost once it is sent; there is inbuilt inflexibility because of the difficulty of amending the approach once questionnaires have been dispatched; there is also the possibility of ambiguous replies or omission of replies altogether to certain questions i.e. interpretation of omissions is difficult; it is difficult to know whether willing respondents are truly representative and this method is likely to be very slow.

In view of the advantages and the need to gather more information, a combination of open and closed ended questionnaires was administered to target respondents in listed stock brokerage firms. Also secondary data of companies that have floated shares was considered and among them were, Scan group, Safaricom, Equity bank, the Cooperative bank of Kenya, Kenya re-insurance corporation, Britam, Eveready east Africa and Express Kenya.

### **3.8 Data Collection Procedure**

Burns and Grove (2003) define data collection as the precise, systematic gathering of information relevant to the research sub-problems, using methods such as interviews, participant observations, focus group discussion, narratives and case histories. This study intended to use questionnaires to obtain both quantitative and qualitative data for analysis. Yang (2008) states that the questions in a study are directly related to the research questions. In development of a survey questionnaire, the variables for which information needs to be collected have to be identified followed by their operational definition. According to Newing (2011), questionnaires consist of a series of specific, usually short questions that are either asked verbally by an interviewer, or answered by the respondent on their own (self-administered). Primary data was collected through the administration of questionnaires to the investors. Kothari (2004) describes primary data as those which are collected afresh and for the first time, and thus happen to be original in character. Morrison et al. (2007)

describes primary data as those items that are original to the problem under study. Polit and Beck (2003) describes a primary data source as the original description of a study prepared by the researcher who conducted it.

Primary data was collected through the administration of questionnaires to all investors in listed firms. Research assistants were engaged to administer and follow up on the questionnaires using well- spaced phone calls.

### **3.9 Pilot Test**

To check the validity and reliability of the questionnaires in gathering the data required for purposes of the study, a pilot study was carried out. The purpose of pilot testing is to establish the accuracy and appropriateness of the research design and instrumentation (Saunders, Lewis & Thornhill (2007). Newing (2011) states that the importance of pilot testing cannot be overemphasized; you almost always find that there are questions that people fail to understand or interpret in different ways, places in the questionnaire where they are not sure where to go next, and questions that turn out simply not to elicit useful information. Cooper & Schindler (2006) concur that the purpose of pilot test is to detect weaknesses in design and implementation and to provide proxy for data collection of a probability sample. Sekaran (2008) reinforces that pilot test is necessary for testing the reliability of instruments and the validity of a study.

#### **3.9.1 Instrument Reliability**

Reliability refers to the repeatability, stability or internal consistency of a questionnaire (Jack & Clarke, 1998). Cronbach's alpha was used to test the reliability of the measures in the questionnaire (Cronbach, 1951). According to Sekaran (2003), Cooper & Schindler (2003), Cronbach's alpha has the most utility for multi-item scales at the interval level of measurement, requires only a single administration and provides a unique, quantitative estimate of the internal consistency of a scale.

Baker (1988) states that the size of a sample to be used for piloting testing varies depending on time, costs and practicality, but the same would tend to be 5- 10 per cent of the main survey. According to Cooper and Schindler (2006) the respondents in a pilot test do not have to be statistically selected when testing the validity and reliability of the instruments.

The questionnaire responses were input into statistical package for social sciences (SPSS) and Cronbach's alpha coefficient generated to assess reliability. For this study 5% of the sample size of the main survey was used which represented 20 respondents. The questionnaire responses were input into statistical package for social sciences (SPSS) and Cronbach's alpha coefficient generated to assess reliability. The closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability (Sekaran, 2003). A coefficient of 0.7 is recommended for a newly developed questionnaire.

**Table 3.1: Reliability Tests**

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>N of Items</b>
Profitable Opportunities	0.768	7
Industrial Performance	0.731	8
Corporate Governance	0.715	9
Economic Performance	0.774	10
Technology	0.791	6
Economic Resources	0.941	10

### **3.9.2 Instrument Validity**

Validity refers to whether a questionnaire is measuring what it purports to measure (Bryman & Cramer, 1997). McMillan and Schumacher (2006) describe validity as the degree of congruence between the explanations of the phenomena and the realities of the world. While absolute validity is difficult to establish, demonstrating the validity of a developing measure is very important in research (Bowling,

1997). This study used both construct validity and content validity. For construct validity, the questionnaire was divided into several sections to ensure that each section assessed information for a specific objective, and also ensured that the same closely ties to the conceptual framework for this study. To ensure content validity, the questionnaire was subjected to thorough examination by two randomly investors. They were asked to evaluate the statements in the questionnaire for relevance and whether they were meaningful, clear and loaded of offensive. On the basis of the evaluation, the instrument were adjusted appropriately and subjected to the final data collection exercise. Their review comments were used to ensure that content validity was enhanced.

### **3.10 Data Processing and Analysis**

According to Zikmund et al. (2010), data analysis refers to the application of reasoning to understand the data that has been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. Quantitative data was analysed using both descriptive and inferential statistics such as multiple regression, correlation, F test, descriptive statistics such as mode, median, mean, standard deviation, etc was used to perform data analysis. While qualitative data was analysed using content analysis. These measures were calculated using statistical package for social sciences (SPSS) soft ware version 20. SPSS tool (Statistical Package for Social Sciences) was used to organize and analyse data. To determine the patterns revealed in the data collected regarding the selected variables, data analysis was guided by the aims and objectives of the research and the measurement of the data collected.

Factor analysis was used to establish the appropriateness of the questionnaire constructs. Specifically factor loadings were used to establish the weights of the various statements on extracted factors. Before the factor analysis was conducted, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was conducted to determine whether adequate correlation exists between the individual items contained within each of the sections of the questionnaire. A KMO statistic, an



associated Bartlett's p-value and an Anti-image correlation statistic are determined when using this test.

This study used the multiple linear regression analysis to test the statistical significance of the various independent variables on the chosen dependent variables. Faraway (2002), states that multiple linear regressions are used in situations where the number of independent variables are more than one. According to IBM (2010), the assumptions of linear regression must be met by the data to be analyzed, these assumptions state that the coefficients must be linear in nature, the response errors should follow a Gaussian distribution and the errors should have a common distribution.

Normality of the residual was tested by Q-Q plots, multicollinearity was tested by Pearson's correlation coefficient, and heteroskedasticity was tested by modified Wald test using the `hettest` command available in stata software. Violations for normality were corrected by removing outliers. Violations for multicollinearity were ignored in instances where the correlation coefficient was less than 0.8. A correlation coefficient of more than 0.8 is an indicator of serious multicollinearity.

Data was sorted, coded and input into the statistical package for social sciences (SPSS) software version 20 for production of graphs, tables, descriptive statistics and inferential statistics. A multiple linear regression model was used to test the significance of the influence of the independent variables on the dependent variable. The multiple linear regression model was as laid below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e \dots \dots \dots (3.1)$$

Where:

Y = Profitability opportunities for retail investors

X<sub>1</sub> = Industrial performance

X<sub>2</sub> = Corporate governance

$X_3$  = Level of economic performance

$X_4$  = Technology

$X_5$  = Availability of economic resources.

- i.  $\{ \beta_i; i=1,2,3,4,5 \}$  = The coefficients representing the various independent variables also called predictor variables
- ii.  $e$  is the error term which is assumed to be normally distributed with mean zero and constant variance.

Analysis of data using regression model has been used previously by Aduda (2011) in a study which investigated the relationship between executive compensation and firm performance in the Kenyan banking sector. Also Ngugi (2001) used a regression analysis in a study on the empirical analysis of interest rates spread in Kenya while Khawaja and Mulesh (2007) used regression analysis to identify the determinants of interest rates spread in Pakistan.

Using data gotten from SPSS, the regression model was tested on how well it fits the data. The significance of each independent variable was also tested, t- test called was applied. F-test was used to test the significance of the overall model at a 95 percent confidence level. The p-value for the F-statistic was applied in determining the robustness of the model. The conclusion was based on the basis of p value where if the null hypothesis of the beta was rejected then the overall model was significant and if null hypothesis was accepted the overall model was insignificant. In other words if the p-value was less than 0.05 then it was concluded that the model was significant and has good predictors of the dependent variable and that the results are not based on chance. If the p-value was greater than 0.05 then the model was not significant and cannot be used to explain the variations in the dependent variable.

### **3.11 Ethical Issues**

Ethical considerations relate to the moral standards that the researcher should consider in all research methods in all stages of the research design. After approval from the University was obtained to conduct the study, permission was obtained from the management of all 21 listed firms. In this research three principles ethics were used namely beneficence, respect for human dignity as well as justice (Polit et al., 2001). Following the three principles, sensitivity to the participants' emotions was observed when probing questions that could psychologically harm the participants as well as protect the participants from adverse situations. The participants were also informed that the information they provided was not used in any way to harm the participants or exploited for commercial and selfish personal gain, but only for academic purposes. Full disclosure, fair treatment and privacy was also practiced.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter deals with the analysis of data. The data analysis is in harmony with the specific objectives where patterns were investigated, interpreted and inferences drawn on them. The specific objectives of the study addressed were to find out whether the industrial performance, corporate governance, economic performance, technology and economic resources in Kenya determine profitable opportunities for retail investors after IPOs. This chapter disclosed the study findings in relation to the variables of study. A detailed discussion has also been provided as the current findings are compared to findings of other studies in related areas.

#### 4.2 Response Rate

The number of questionnaires, administered to all the respondents, was 384. A total of 264 questionnaires were properly filled and returned from the investors in listed brokerage firms at NSE. This represented an overall successful response rate of 69%. According to Mugenda and Mugenda (2003), a response rate of 50% or more is adequate. Babbie (2004) also asserted that return rates of 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

**Table 4.1: Response Rate**

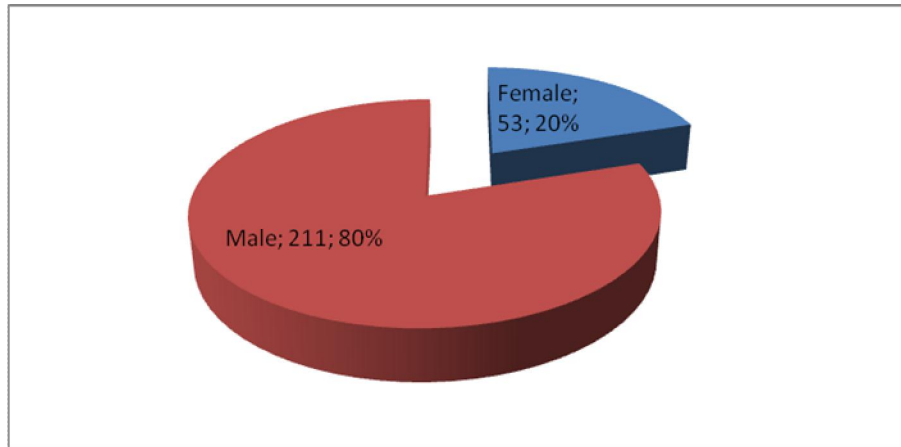
<b>Response rate</b>	<b>Frequency</b>	<b>percent</b>
Returned	264	69%
Unreturned	120	31%
Total	384	100%

#### 4.3 Demographic Information

##### 4.3.1 Gender of the Respondents

The respondents were asked to indicate their gender. Results were presented in Figure 4.1. Majority (80%) of the respondents were male and 20% were female. The

findings support that stocks brokerage sector is a male dominated field. According to Ellis et al. (2007), in spite of women being major actors in Kenya's economy, and notably in agriculture and the informal business sector, men dominate in the formal sector citing the ratio of men to women in formal sector as 0.74 : 0.26.



**Figure 4.1: Gender of the Respondents**

#### 4.3.2 Level of Education

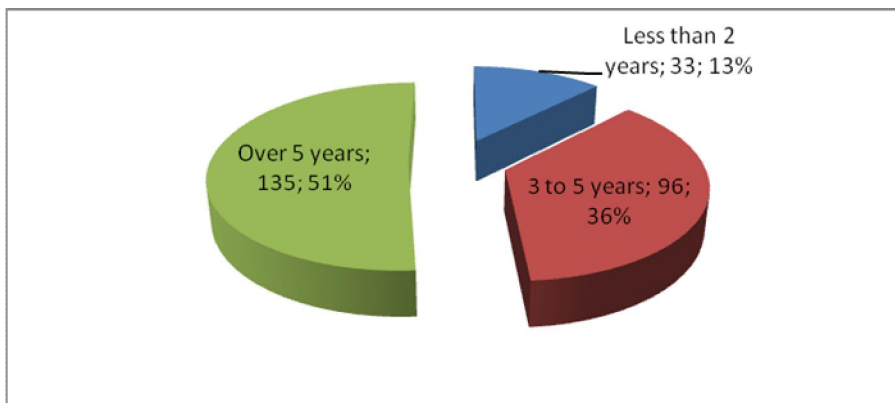
The respondents were asked to indicate their highest level of education. The findings in Table 4.2 illustrates that 40.5% of the respondents had reached university level, while 33.7% of the respondents had reached college level and 20.8% had attained post graduate level. The findings imply that most of the respondents had high level of education which could have contributed to accurate responses. The high level of education of respondent indicates that many investors in the security market have attained a given level of education.

**Table 4.2: Level of Education**

Level of Education	Frequency	Percent
Secondary level	13	4.9
College level	89	33.7
University level	107	40.5
Post graduate level	55	20.8
Total	264	100

### 4.3.3 Length of Participation in Stock Market

The study sought to find out the years the respondents had participated in the stock market. Figure 4.2 shows that 51.1% of the respondents indicated they had participated for 5 years and above while 36% indicated between 3 to 5 years and 13% indicated less than 2 years. The findings imply that the respondents had participated in stock market long enough and hence had knowledge about the issues that the researcher was looking for.



**Figure 4.2: Length of Employment**

## 4.4 Profitable Opportunities

### 4.4.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on profitable opportunities, a coefficient of 0.769 was found as shown in Table 4.3. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the profitable opportunities variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

**Table 4.3: Reliability Test for Profitable Opportunities**

<b>Variable</b>	<b>Profitable Opportunities</b>
Number of Items	6
Cronbach's Alpha	0.769

#### **4.4.2 Sampling Adequacy**

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.4 showed that the KMO statistic was 0.750 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 400.595 with 15 degree of freedom, at  $p < 0.05$ ). The results of the KMO and Bartlett's Test are summarized in Table 4.4. These results provide an excellent justification for further statistical analysis to be conducted.

**Table 4.4: Profitable Opportunities KMO Sampling Adequacy and Bartlett's Sphericity Tests**

Kaiser-Meyer-Olkin Measure	0.750
Bartlett's Chi- Square	400.595
Bartlett's df	15
Bartlett's Sig.	0

#### 4.4.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The essence of carrying out factor analysis was to check the factor loadings of every statement to see if its meets the threshold of 0.4 to be retained for further analysis. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 6 statements on profitable opportunities can be factored into 1 factor. The total variance explained by the extracted factor is 47.261% as shown in Table 4.5.

**Table 4.5: Profitable Opportunities Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.836	47.261	47.261	2.836	47.261	47.261
2	0.967	16.114	63.375			
3	0.72	11.997	75.373			
4	0.637	10.616	85.988			
5	0.499	8.308	94.297			
6	0.342	5.703	100			

Extraction Method: Principal Component Analysis.

Table 4.6 shows the factor loadings for profitable opportunities statements. All the seven factors attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.



**Table 4.6: Profitable Opportunities Factor Analysis Component Matrix**

<b>Statement</b>	<b>Component</b>
Investors are driven by subjective beliefs about the value of the company.	0.65
Investors are driven by the herding behaviour where they buy because others are buying.	0.694
Trading behaviour can be explained by rational expectation theory.	0.746
Excessive optimism drives asset values above fundamental.	0.654
Over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals.	0.662
Investors are willing to pay premium in excess of their rational belief if sentiment is biased towards newly issued stocks.	0.714

Extraction Method: Principal Component Analysis.

#### **4.4.4 Descriptive Analysis**

The study sought to determine the determining the profitable opportunities for retail investors after an initial public offer. Table 4.7 shows that 65.6% of the respondents agreed that investors are driven by subjective beliefs about the value of the company, 74.7% agreed that investors are driven by the herding behaviour where they buy because others are buying and 83.4% agreed that trading behaviour can be explained by rational expectation theory. In addition, 79.2% of the respondents agreed that excessive optimism drives asset values above fundamental, 65.9% agreed that over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals and 80.7% agreed that investors are willing to pay premium in excess of their rational belief if sentiment is biased towards newly issued stocks. The mean score for the responses was 3.78 which indicate that many employees agreed to the statements regarding profitable opportunities for retail investors.

The findings agree with those in Bubere and Shihab (2012) who conducted a study to investigate if retail investors have profitable opportunities in the Nordic markets. The authors found from previous research on Initial Public Offerings (IPOs) that they have documented abnormal returns and they made the assumption that if abnormal

returns exists, there are profitable opportunities for retail investors and thus they wanted to contribute with up-to date research to help retail investors make a better investment choice in the Nordic markets. To investigate if there are profitable opportunities for retail investors Bubere and Shihab (2012) chose to conduct a quantitative cross-sectional study on 68 IPOs from the years 2005 to 2011 in the Nordic markets. The empirical results revealed that there is under pricing in the Nordic markets and that the price is stable up to one month after the IPO. The results did not find any statistical differences in time lags or in industries.

**Table 4.7: Profitable Opportunities for Retail Investors**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Likert Mean</b>
Investors are driven by subjective beliefs about the value of the company.	14.0%	9.1%	11.4%	34.5%	31.1%	3.59
Investors are driven by the herding behaviour where they buy because others are buying.	7.2%	9.5%	8.7%	54.2%	20.5%	3.71
Trading behaviour can be explained by rational expectation theory.	4.5%	4.9%	7.2%	52.7%	30.7%	4
Excessive optimism drives asset values above fundamental.	6.1%	8.3%	6.4%	50.8%	28.4%	3.87
Over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals.	6.8%	18.2%	9.1%	36.7%	29.2%	3.63
Investors are willing to pay premium in excess of their rational belief if sentiment is biased towards newly issued stocks	5.3%	9.8%	4.2%	51.5%	29.2%	3.89
Average	7.3%	10.0%	7.8%	46.7%	28.2%	3.78

#### 4.4.5 Normality Test for Profitable Opportunities

It was necessary to carry out the normality test as many of the statistical procedures used in the study including correlation, regression and t- test were based on the assumption that the data follows a normal distribution. This assumes that the population from which the sample was drawn was normally distributed (Ghasemi & Zahedias, 2012). Graphical interpretation was used as it has the advantage of allowing good judgment to assess normality in situations where statistical methods lack objectivity.

Figure 4.3 below shows the normality test of profitable opportunities which indicates that the dependent variable was normally distributed and that the probability of outliers was minimal. The findings imply that the responses were lying close to the line of normality. Furthermore, it implied that the data was ideal for multiple linear regression.

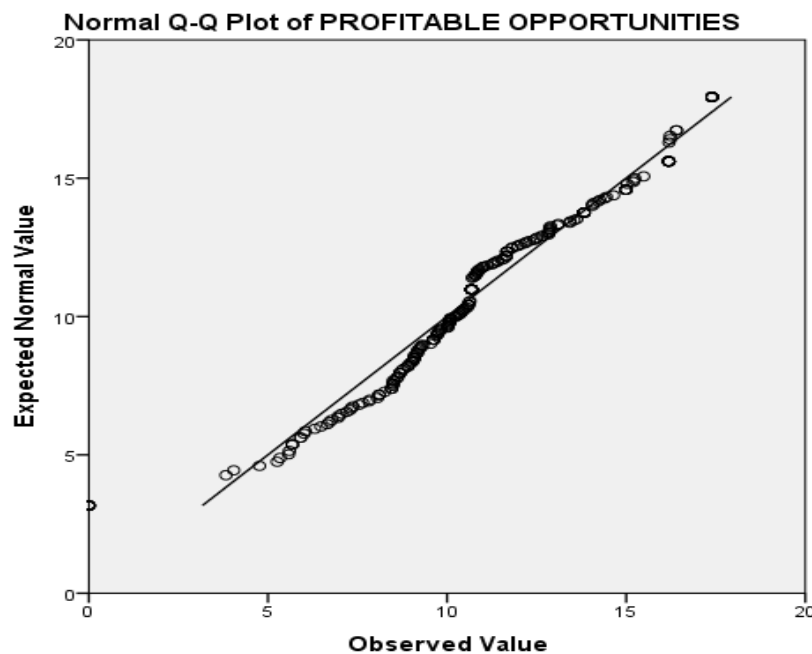


Figure 4.3: Normality of Profitable Opportunities

## 4.5 Industrial Performance

### 4.5.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on industrial performance, a coefficient of 0.702 was found as shown in Table 4.8. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the industrial performance variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

**Table 4.8: Reliability Test for Industrial Performance**

<b>Variable</b>	<b>Industrial performance</b>
Number of items	8
Cronbach's Alpha	0.702

### 4.5.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.9 showed that the KMO statistic was 0.702 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 389.779 with 28 degree of freedom, at  $p < 0.05$ ). The results of the KMO and Bartlett's Test are summarized in

Table 4.9. These results provide an excellent justification for further statistical analysis to be conducted.

**Table 4.9: Industrial Performance KMO Sampling Adequacy and Bartlett's Sphericity Tests**

Kaiser-Meyer-Olkin Measure	0.702
Bartlett's Chi- Square	389.779
Bartlett's df	28
Bartlett's Sig.	0

#### 4.5.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 8 statements on industrial performance can be factored into 1 factor. The total variance explained by the extracted factor is 33.256% as shown in Table 4.10.

**Table 4.10: Industrial Performance Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.661	33.256	33.256	2.661	33.256	33.256
2	1.371	17.139	50.395			
3	1.073	13.413	63.808			
4	0.818	10.222	74.03			
5	0.62	7.748	81.778			
6	0.556	6.949	88.727			
7	0.489	6.111	94.838			
8	0.413	5.162	100			

Extraction Method: Principal Component Analysis.

Table 4.11 shows the factor loadings for industrial performance statements. All the eight factors attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

**Table 4.11: Industrial Performance Factor Analysis Component Matrix**

<b>Statement</b>	<b>Component</b>
Firm size has a significant impact on IPO pricing.	0.705
Larger firms are easier to value because of ease of forecasting cash flows	0.698
A firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price.	0.618
The firm has complied with the regulator on the directive to increase its core capital.	0.483
The firm has participated in mergers and engaged strategic investors in a bid to shore up its capital.	0.56
Retail shareholders are keen on core capital when making share investment decisions.	0.499
Institutional investors are particular on the magnitude of core capital when making investment decisions.	0.506
Revaluation reserves should be included in core capital because it also reflects the worth of a bank.	0.492

Extraction Method: Principal Component Analysis.

#### **4.5.4 Descriptive Analysis**

The first objective of the study was to find out whether the industrial performance in Kenya determines profitable opportunities for retail investors after IPOs. Table 4.12 shows that 75.7% of the respondents agreed that firm size has a significant impact on IPO pricing, 79.6% agreed that larger firms are easier to value because of ease of

forecasting cash flows and 76.1% agreed that a firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price. In addition, 75.4% of the respondents agreed that the firm has complied with the regulator on the directive to increase its core capital, 80% agreed that the firm has participated in mergers and engaged strategic investors in a bid to shore up its capital and 78.8% agreed that retail shareholders are keen on core capital when making share investment decisions. Finally 74.6% of the respondents agreed that institutional investors are particular on the magnitude of core capital when making investment decisions and 73.1% agreed that revaluation reserves should be included in core capital because it also reflects the worth of a bank. The mean score for the response for this section was 3.88 which indicates that majority of the respondents agreed that industrial performance was a key determinant of profitable opportunities for retail investors.

The study findings agree with those in Hong and Stein (2006) who advocated for a bottom up approach which relied on biases in individual investors psychology such as over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals and concluded that behavioural biases have become popular for explaining asset pricing that are in consistent with rational decision making frame work.

The study findings also agree with Ljungqvist (2004) who argued that investors are willing to pay premium in excess of their rational belief if sentiment was biased towards newly issued stocks. Ljungqvist, Nanda, and Singh (2003) also agreed that investor sentiment affects the pricing of IPO, but posited that since noise traders are wealth constrained, the issuer must price IPO below the price noise traders are ready to pay to induce informed investors.

**Table 4.12: Industrial Performance**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Likert Mean</b>
Firm size has a significant impact on IPO pricing.	0.4%	13.3%	10.6%	43.9%	31.8%	3.94
Larger firms are easier to value because of ease of forecasting cash flows	2.7%	11.0%	6.8%	55.7%	23.9%	3.87
A firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price.	1.9%	10.6%	11.4%	47.7%	28.4%	3.9
The firm has complied with the regulator on the directive to increase its core capital.	1.5%	12.1%	11.0%	48.5%	26.9%	3.87
The firm has participated in mergers and engaged strategic investors in a bid to shore up its capital.	1.5%	9.8%	8.7%	54.2%	25.8%	3.93
Retail shareholders are keen on core capital when making share investment decisions.	3.4%	10.2%	7.6%	54.9%	23.9%	3.86
Institutional investors are particular on the magnitude of core capital when making investment decisions.	4.9%	11.0%	9.5%	44.3%	30.3%	3.84
Revaluation reserves should be included in core capital because it also reflects the worth of a bank.	5.3%	14.0%	7.6%	35.6%	37.5%	3.86
<b>Average</b>	<b>2.7%</b>	<b>11.5%</b>	<b>9.2%</b>	<b>48.1%</b>	<b>28.6%</b>	<b>3.88</b>



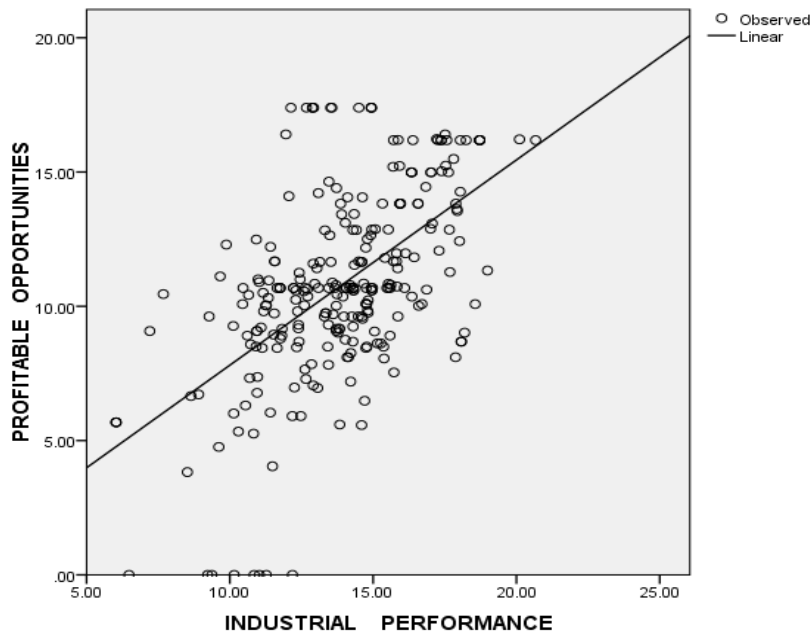
#### 4.5.5 Relationship between Industrial Performance and Profitable Opportunities

Table 4.13 shows the correlation results which indicate that there was a positive and significant relationship between industrial performance and profitable opportunities. This reveals that any positive change in industrial performance led to increased profitable opportunities for retail investors. The relationship has been illustrated by the correlation co-efficient of 0.566, implying a positive relationship between industrial performance and profitable opportunities for retail investors in Kenya. This was also evidenced by the p value of 0.000 which is less than that of critical value (0.05)

**Table 4.13: Relationship between Industrial Performance and Profitable Opportunities**

Variable		Profitable opportunities	Industrial Performance
Profitable opportunities	Pearson Correlation	1	
	Sig. (2-tailed)		
Industrial Performance	Pearson Correlation	0.566	1
	Sig. (2-tailed)	0.000	

The findings on Figure 4.4 show the relationship between industrial performance and profitable opportunities for retail investors. The figure indicates that a positive relationship exists between industrial performance and profitable opportunities for retail investors



**Figure 4.4: Linear Relationship between Industrial Performance and Profitable Opportunities**

Regression analysis was conducted to empirically determine whether industrial performance was a significant determinant of profitable opportunities for retail investors. Regression results in Table 4.14 indicate the goodness of fit for the regression between industrial performance and profitable opportunities was satisfactory. An R squared of 0.320 indicates that 32% of the variations in profitable opportunities for retail investors are explained by the variations in industrial performance.

The study findings agree with those in Hong and Stein (2006) who advocated for a bottom up approach which relied on biases in individual investors psychology such as over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals and concluded that behavioural biases have become popular for explaining asset pricing that are in consistent with rational decision making frame work.

**Table 4.14: Model Summary for Industrial Performance**

<b>Indicator</b>	<b>Coefficient</b>
R	0.566
R Square	0.320
Std. Error of the Estimate	2.91765

The overall model significance was presented in table 4.15. An F statistic of 123.177 indicated that the overall model was significant. The findings imply that industrial performance was statistically significant in explaining profitable opportunities for retail investors.

**Table 4.15: ANOVA for Industrial Performance**

<b>Indicator</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	1048.563	1	1048.563	123.177	0.000
Residual	2230.318	262	8.513		
Total	3278.881	263			

The industrial performance coefficients are presented in table 4.16. The results show that industrial performance contributes significantly to the model since the p-value for the constant and gradient are less than 0.05. The fitted equation is as shown below

$$Y = 0.165 + 0.764X_1 \dots\dots\dots (4.1)$$

The findings imply that one positive unit change in industrial performance led to a change in profitability at the rate of 0.764. This confirms the positive effect of industrial performance on profitability. The study findings also agree with those in Ljungqvist (2004) who argued that investors are willing to pay premium in excess of their rational belief if sentiment was biased towards newly issued stocks. Ljungqvist,

Nanda, and Singh (2003) also agreed that investor sentiment affects the pricing of IPO, but posited that since noise traders are wealth constrained, the issuer must price IPO below the price noise traders are ready to pay to induce informed investors.

**Table 4.16: Coefficients of Industrial Performance**

Variable	Beta	Std. Error	t	Sig.
Constant	0.165	0.973	0.169	0.866
Industrial Performance	0.764	0.069	11.099	0.000

## 4.6 Corporate Governance

### 4.6.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on corporate governance, a coefficient of 0.772 was found as shown in Table 4.17. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the corporate governance variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

**Table 4.17: Reliability Test for Corporate Governance**

Variable	Corporate Governance
Number of items	8
Cronbach's Alpha	0.772

### 4.6.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure

of Sampling Adequacy and Bartlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.18 showed that the KMO statistic was 0.711 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 679.68 with 28 degree of freedom, at  $p < 0.05$ ). The results of the KMO and Bartlett's Test are summarized in Table 4.18. These results provide an excellent justification for further statistical analysis to be conducted.

**Table 4.18: Corporate Governance KMO Sampling Adequacy and Bartlett's Sphericity Tests**

Kaiser-Meyer-Olkin Measure	0.711
Bartlett's Chi- Square	679.68
Bartlett's df	28
Bartlett's Sig.	0

### 4.6.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 8 statements on corporate governance can be factored into 1 factor. The total variance explained by the extracted factor is 33.256% as shown in Table 4.19.

**Table 4.19: Corporate Governance Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.141	39.266	39.266	3.141	39.266	39.266
2	1.541	19.258	58.524			
3	1.049	13.115	71.639			
4	0.726	9.075	80.714			
5	0.529	6.613	87.327			
6	0.407	5.082	92.409			
7	0.321	4.013	96.422			
8	0.286	3.578	100			

Extraction Method: Principal Component Analysis.

Table 4.20 shows the factor loadings for corporate governance statements. All the eight factors attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

**Table 4.20: Corporate Governance Factor Analysis Component Matrix**

Statement	Component
The firm has independent board committees in place to enhance effective monitoring.	0.421
The firm has board committees which consist of independent non-executives directors.	0.680
The board committees in our firm ensures that executive directors make decisions that are in the best interests of shareholders	0.672
The firm has in place monitoring committees (audit, nomination, and compensation committees).	0.697
Board Committees lead to better organization performance	0.673
Firm gains legitimacy through prestigious board of directors.	0.681
Directors association with other companies via board service enhance the prestige of the IPO firm	0.552
Board prestige is an important signal to potential investors.	0.585

Extraction Method: Principal Component Analysis.

#### 4.6.4 Descriptive Analysis

The second objective of the study was to establish whether company's corporate governance in Kenya influences profitable opportunities for retail investors after IPOs. Table 4.21 shows that 72.3% of the respondents agreed that the firm has independent board committees in place to enhance effective monitoring, 67.4% agreed that the firm has board committees which consist of independent non-executives directors and 66.6% agreed that the board committees in our firm ensures that executive directors make decisions that are in the best interests of shareholders. Seventy point one percent of the respondents agreed that the firm has in place monitoring committees (audit, nomination, and compensation committees), 70.5% agreed that Board Committees lead to better organization performance and 68.9% agreed that firm gains legitimacy through prestigious board of directors. Finally, 71.95 of the respondents agreed that directors association with other companies via board service enhance the prestige of the IPO firm and 75.8% agreed that board

prestige was an important signal to potential investors. The mean score for the response for this section was 3.75 which indicates that majority of the respondents agreed that corporate governance was a key determinant of profitable opportunities for retail investors.

The study findings are consistent with those in Shivdasani (1993) who asserted that prestigious board is a signal of effective control and enhances the value of the firm going public. Davis and Mizruchi (1999) further argued that board prestige is an important signal to potential investors while Jensen (1993) posited that board of directors play a crucial role in internal control systems of the firm. Effective control has the effect of enhancing value of the firm and hence higher offer price. Daily (2005) argued that where an IPO firm possesses prestigious board, the underwriter was likely to offer a narrow offer price band and a higher offer price.

The study findings further agreed with those of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) that showed that better shareholder protection was associated with higher valuation of corporate assets. Gompers, Ishii, and Metrick (2003) and Bebchuk, Cohen, and Ferrell (2004) used country level evidence from the United States. Bauer, Günster, and Otten (2004) used the Deminor Corporate Governance Ratings for companies included in the FTSE Eurotop 300 index and documented that higher ratings are associated with higher stock returns and higher firm valuations.



**Table 4.21: Corporate Governance**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Likert Mean</b>
The firm has independent board committees in place to enhance effective monitoring.	2.7%	12.9%	12.1%	33.3%	39.0%	3.93
The firm has board committees which consist of independent non-executives directors.	3.4%	16.3%	12.9%	40.9%	26.5%	3.71
The board committees in our firm ensures that executive directors make decisions that are in the best interests of shareholders	1.1%	14.4%	17.8%	53.0%	13.6%	3.64
The firm has in place monitoring committees (audit, nomination, and compensation committees).	3.4%	13.3%	13.3%	46.6%	23.5%	3.73
Board Committees lead to better organization performance	3.8%	17.4%	8.3%	34.5%	36.0%	3.81
Firm gains legitimacy through prestigious board of directors	3.0%	22.3%	5.7%	35.2%	33.7%	3.74
Directors association with other companies via board service enhance the prestige of the IPO firm	6.4%	12.9%	8.7%	53.0%	18.9%	3.65
Board prestige is an important signal to potential investors.	7.6%	9.8%	6.8%	48.1%	27.7%	3.78
<b>Average</b>	<b>3.9%</b>	<b>14.9%</b>	<b>10.7%</b>	<b>43.1%</b>	<b>27.4%</b>	<b>3.75</b>

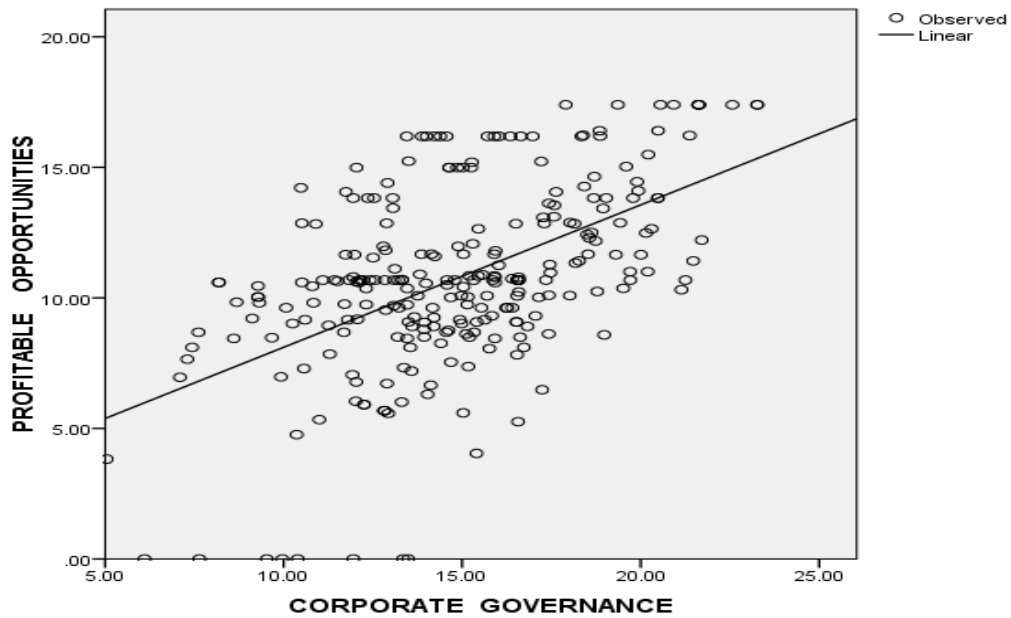
#### 4.6.5 Relationship between Corporate Governance and Profitable Opportunities

Table 4.22 shows the correlation results which indicate that there was a positive and significant relationship between corporate governance and profitable opportunity. This reveals that any positive change in corporate governance led to increased profitable opportunities for retail investors. The relationship has been illustrated by the correlation co-efficient of 0.532, implying a positive relationship between corporate governance and profitable opportunities for retail investors in Kenya. This was also evidenced by the p value of 0.000 which is less than that of critical value (0.05)

**Table 4.22: Relationship between Corporate Governance and Profitable Opportunities**

Variable		Profitable opportunities	Corporate Governance
Profitable opportunities	Pearson Correlation	1	
	Sig. (2-tailed)		
Corporate Governance	Pearson Correlation	0.532	1
	Sig. (2-tailed)	0.000	

The study findings on Figure 4.5 show the relationship between corporate governance and profitable opportunities for retail investors. The figure indicates that a positive relationship exists between corporate governance and profitable opportunities.



**Figure 4.5: Linear Relationship corporate Governance and Profitable opportunities**

Regression analysis was conducted to empirically determine whether corporate governance was a significant determinant of profitable opportunities for retail investors. Regression results in Table 4.23 indicate the goodness of fit for the regression between corporate governance and profitable opportunities was satisfactory. An R squared of 0.283 indicates that 28.3% of the variations in profitable opportunities for retail investors are explained by the variations in corporate governance.

The study findings further agreed with those of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) that showed that better shareholder protection was associated with higher valuation of corporate assets. Gompers, Ishii, and Metrick (2003) and Bebchuk, Cohen, and Ferrell (2004) used country level evidence from the United States. Bauer, Günster, and Otten (2004) used the Deminor Corporate Governance Ratings for companies included in the FTSE Eurotop 300 index and documented that higher ratings are associated with higher stock returns and higher firm valuations.

**Table 4.23: Model Summary for Corporate Governance**

<b>Indicator</b>	<b>Coefficient</b>
R	0.532
R Square	0.283
Std. Error of the Estimate	2.99461

The overall model significance was presented in table 4.24. An F statistic of 103.634 indicated that the overall model was significant. This was supported by a probability value of (0.000). The reported probability of (0.000) is less than the conventional probability of (0.05). The model applied can significantly predict the change in the profitable opportunities for retail investors after an initial public offer in Kenya. The study, therefore, rejected the null hypothesis  $H_{02}$  at 95% confidence interval, meaning there was a significant relationship between corporate governance and profitable opportunities.

**Table 4.24: ANOVA for Corporate Governance**

<b>Indicator</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	929.352	1	929.352	103.634	0.000
Residual	2349.529	262	8.968		
Total	3278.881	263			

The corporate governance coefficients are presented in table 4.25. The results show that corporate governance contributes significantly to the model since the p-value for the constant and gradient are less than 0.05. The fitted equation is as shown below

$$Y = 2.654 + 0.545X_2 \dots\dots\dots (4.2)$$

The findings imply that one positive unit change in corporate governance led to a change in profitability at the rate of 0.545. This confirms the positive effect of corporate governance on profitability. The study findings further agreed with those of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) that showed that better shareholder protection was associated with higher valuation of corporate assets.

Gompers, Ishii, and Metrick (2003) and Bebchuk, Cohen, and Ferrell (2004) used country level evidence from the United States. Bauer, Günster, and Otten (2004) used the Deminor Corporate Governance Ratings for companies included in the FTSE Eurotop 300 index and documented that higher ratings are associated with higher stock returns and higher firm valuations.

**Table 4.25: Coefficients of Corporate Governance**

Variable	Beta	Std. Error	t	Sig.
Constant	2.654	0.819	3.241	0.001
Corporate Governance (X <sub>2</sub> )	0.545	0.054	10.180	0.000

#### 4.7 Economic Performance

##### 4.7.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on economic performance, a coefficient of 0.895 was found as shown in Table 4.26. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the economic performance variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

**Table 4.26: Reliability Test for Economic Performance**

Variable	Economic performance
Number of items	9
Cronbach's Alpha	0.895

##### 4.7.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical

tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.27 showed that the KMO statistic was 0.802 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 2089.305 with 36 degree of freedom, at  $p < 0.05$ ). The results of the KMO and Bartlett's Test are summarized in Table 4.27. These results provide an excellent justification for further statistical analysis to be conducted.

**Table 4.27: Economic Performance KMO Sampling Adequacy and Bartlett's Sphericity Tests**

Kaiser-Meyer-Olkin Measure	0.802
Bartlett's Chi- Square	2089.305
Bartlett's df	36
Bartlett's Sig.	0

### 4.7.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 9 statements on economic performance can be factored into 1 factor. The total variance explained by the extracted factor is 54.70% as shown in Table 4.28.

**Table 4.28: Economic Performance Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.923	54.704	54.704	4.923	54.704	54.704
2	1.675	18.611	73.316			
3	0.626	6.952	80.268			
4	0.555	6.165	86.432			
5	0.485	5.389	91.821			
6	0.318	3.538	95.359			
7	0.26	2.892	98.251			
8	0.138	1.528	99.778			
9	0.02	0.222	100			

Extraction Method: Principal Component Analysis.

Table 4.29 shows the factor loadings for economic performance statements. All the nine factors attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

**Table 4.29: Economic Performance Factor Analysis Component Matrix**

<b>Statement</b>	<b>Component</b>
IPO firms are subject to uncertainties regarding quality of the firm because of missing track record and lack of public scrutiny.	0.804
In order to compensate investors for value uncertainty, investment bankers discount IPO offer prices.	0.786
Older firms have longer operating histories and face less uncertainty.	0.746
Younger firms have shorter operating history and are subject to great deal of uncertainty.	0.812
Because of greater uncertainties surrounding the prospects of younger firms, underwriters apply greater offer price spread and lower offer prices as compared to older firms with larger operating history.	0.783
High inflation rate leads to poor performance of firms.	0.695
Increase in inflation leads to slow economic growth.	0.64
Inflation's biggest threat to shareholder value lies in the inability of most companies to pass on cost increases to their customers fully without losing sales volumes.	0.665
The firms raise output prices above the level of inflation for them to remain competent.	0.703

Extraction Method: Principal Component Analysis.

#### **4.7.4 Descriptive Analysis**

The third objective of the study was to determine the effect of economic performance in Kenya on profitable opportunities for retail investors after IPOs. Table 4.30 shows that 61.4% of the respondents agreed that IPO firms are subject to uncertainties regarding quality of the firm because of missing track record and lack of public scrutiny, 62.5% agreed that in order to compensate investors for value uncertainty, investment bankers discount IPO offer prices and 68.2% agreed that older firms have longer operating histories and face less uncertainty. Sixty point six percent of the respondents agreed that younger firms have shorter operating history and are subject



to great deal of uncertainty, 75.3% agreed that because of greater uncertainties surrounding the prospects of younger firms, underwriters apply greater offer price spread and lower offer prices as compared to older firms with larger operating history and 74.3% agreed that high inflation rate leads to poor performance of firms. In addition, 79.9% of the respondents agreed that increase in inflation leads to slow economic growth, 62.5% agreed that inflation's biggest threat to shareholder value lies in the inability of most companies to pass on cost increases to their customers fully without losing sales volumes and 71.2% agreed that the firms raise output prices above the level of inflation for them to remain competent. The mean score for the response for this section was 3.73 which indicates that majority of the respondents agreed that economic performance was a key determinant of profitability opportunities for retail investors.

The study findings corroborate with those in Enisan and Olufisayo (2009) who examined the long run and causal relationship between stock market development and economic growth for seven countries in sub-Saharan Africa. They found that the stock market development is co integrated with economic growth in Egypt and South Africa suggesting that stock market development has a significant positive long run impact on economic growth.

The findings further corroborate with those of Uddin and Alam (2007) who examined the linear relationship between share price and interest rate, share price and changes of interest rate, changes of share price and interest rate, and changes of share price and changes of interest rate on Dhaka Stock Exchange (DSE). For all of the cases, included and excluded outlier, it was found that Interest Rate has significant negative relationship with Share Price and Changes of Interest Rate has significant negative relationship with Changes of Share Price.

**Table 4.30: Economic Performance**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Likert Mean</b>
IPO firms are subject to uncertainties regarding quality of the firm because of missing track record and lack of public scrutiny.	8.7%	19.3%	10.6%	44.7%	16.7%	3.41
In order to compensate investors for value uncertainty, investment bankers discount IPO offer prices.	8.7%	12.1%	16.7%	38.6%	23.9%	3.57
Older firms have longer operating histories and face less uncertainty.	6.4%	13.3%	12.1%	43.6%	24.6%	3.67
Younger firms have shorter operating history and are subject to great deal of uncertainty.	8.0%	20.1%	11.4%	43.9%	16.7%	3.41
Because of greater uncertainties surrounding the prospects of younger firms, underwriters apply greater offer price spread and lower offer prices as compared to older firms with larger operating history.	5.3%	10.6%	8.7%	40.5%	34.8%	3.89
High inflation rate leads to poor performance of firms.	4.2%	4.9%	16.7%	34.1%	40.2%	4.01
Increase in inflation leads to slow economic growth.	2.7%	5.7%	11.7%	42.4%	37.5%	4.06
Inflation's biggest threat to shareholder value lies in the inability of most companies to pass on cost increases to their customers fully without losing sales volumes.	6.8%	18.9%	11.7%	33.7%	28.8%	3.59
The firms raise output prices above the level of inflation for them to remain competent.	3.4%	17.0%	8.3%	25.4%	45.8%	3.93
Average	6.0%	13.5%	12.0%	38.5%	29.9%	3.73

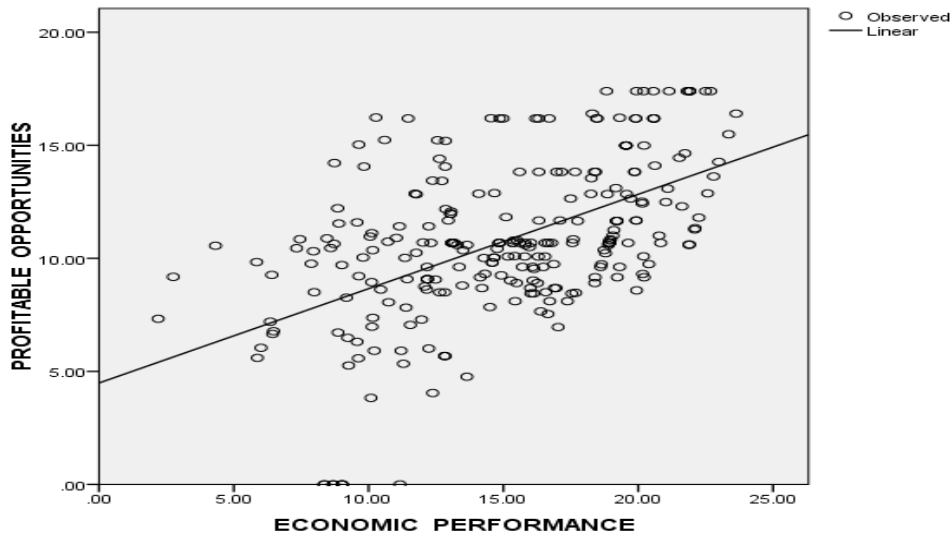
#### 4.7.5 Relationship between Economic Performance and Profitable Opportunities

Table 4.31 shows the correlation results which indicate that there was a positive and significant relationship between economic performance and profitable opportunity. This reveals that any positive change in economic performance led to increased profitable opportunities for retail investors. The relationship has been illustrated by the correlation co-efficient of 0.531, implying a positive relationship between economic performance and profitable opportunities for retail investors in Kenya. This was also evidenced by the p value of 0.000 which is less than that of critical value (0.05)

**Table 4.31: Relationship between Economic Performance and Profitable Opportunities**

Variable		Profitable opportunities	Economic Performance
Profitable opportunities	Pearson Correlation	1	
	Sig. (2-tailed)		
Economic Performance	Pearson Correlation	0.531	1
	Sig. (2-tailed)	0.000	

The findings on (Figure 4.6) show the relationship between economic performance and profitable opportunities for retail investors. The figure indicates that a positive relationship exists between economic performance and profitable opportunities for retail investors in Kenya. The study findings corroborate with those in Enisan and Olufisayo (2009) who examined the long run and causal relationship between stock market development and economic growth for seven countries in sub-Saharan Africa. They found that the stock market development is co integrated with economic growth in Egypt and South Africa suggesting that stock market development has a significant positive long run impact on economic growth.



**Figure 4.6: Linear Relationship between Economic Performance and Profitable Opportunities**

Regression analysis was conducted to empirically determine whether economic performance was a significant determinant of profitable opportunities for retail investors. Regression results in Table 4.32 indicate the goodness of fit for the regression between economic performance and profitable opportunities was satisfactory. An R squared of 0.282 indicates that 28.2% of the variations in profitable opportunities for retail investors are explained by the variations in economic performance.

**Table 4.32: Model Summary for Economic Performance**

<b>Indicator</b>	<b>Coefficient</b>
R	0.531
R Square	0.282
Std. Error of the Estimate	2.99842

The overall model significance was presented in table 4.33. An F statistic of 102.703 indicated that the overall model was significant. This was supported by a probability

value of (0.000). The reported probability of (0.000) is less than the conventional probability of (0.05). The model applied can significantly predict the change in the profitable opportunities for retail investors after an initial public offer in Kenya. The study, therefore, rejected the null hypothesis  $H_{03}$  at 95% confidence interval, meaning there was a significant relationship between economic performance and profitable opportunities.

**Table 4.33: ANOVA for Economic Performance**

<b>Indicator</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	923.357	1	923.357	102.703	0.000
Residual	2355.524	262	8.991		
Total	3278.881	263			

The economic performance coefficients are presented in table 4.34. The results show that economic performance contributes significantly to the model since the p-value for the constant and gradient are less than 0.05. The fitted equation is as shown below

$$Y = 4.486 + 0.417X_3 \dots\dots\dots (4.3)$$

The findings imply that one positive unit change in economic performance led to a change in profitability at the rate of 0.417. This confirms the positive effect of economic performance on profitability. The study findings corroborate with those in Enisan and Olufisayo (2009) who examined the long run and causal relationship between stock market development and economic growth for seven countries in sub-Saharan Africa. They found that the stock market development is co integrated with economic growth in Egypt and South Africa suggesting that stock market development has a significant positive long run impact on economic growth.

**Table 4.34: Coefficients of Economic Performance**

Variable	Beta	Std. Error	t	Sig.
Constant	4.486	0.647	6.928	0.000
Economic Performance (X <sub>3</sub> )	0.417	0.041	10.134	0.000

## 4.8 Technology

### 4.8.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on technology, a coefficient of 0.814 was found as shown in Table 4.35. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the technology variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

**Table 4.35: Reliability Test for Technology**

Variable	Technology
Number of items	5
Cronbach's Alpha	0.814

### 4.8.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.36 showed that the KMO statistic was 0.791 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 499.286 with 10 degree of freedom, at  $p < 0.05$ ). The results of the KMO and Bartlett's Test are summarized in Table 4.36. These results provide an excellent justification for further statistical analysis to be conducted.

**Table 4.36: Technology KMO Sampling Adequacy and Bartlett's Sphericity Tests**

Kaiser-Meyer-Olkin Measure	0.791
Bartlett's Chi- Square	499.286
Bartlett's df	10
Bartlett's Sig.	0

#### 4.8.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 5 statements on technology can be factored into 1 factor. The total variance explained by the extracted factor is 57.98% as shown in Table 4.37.

**Table 4.37: Technology Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.899	57.989	57.989	2.899	57.989	57.989
2	0.908	18.166	76.155			
3	0.475	9.493	85.648			
4	0.464	9.28	94.927			
5	0.254	5.073	100			

Extraction Method: Principal Component Analysis.

Table 4.38 shows the factor loadings for technology statements. All the five factors attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.

**Table 4.38: Technology Factor Analysis Component Matrix**

Statement	Component
The organization has invested in a management information system which is easy to use.	0.729
The organization has invested in a management information system which has enabled the minimization of administrative costs.	0.832
The organizations management information system is compatible with other systems.	0.888
The management information system is flexible enough to support the growth of the firm.	0.799
The management information system of the firm has been crucial in delivering innovative customer services.	0.498

Extraction Method: Principal Component Analysis.



#### **4.8.4 Descriptive Analysis**

The fourth objective of the study was to find out whether the technology in Kenya determines profitable opportunities for retail investors after IPOs. Table 4.39 shows that 77.7% of the respondents agreed that the organization had invested in a management information system which was easy to use, 75.3% agreed that the organization had invested in a management information system which enabled the minimization of administrative costs and 76.9% agreed that the organizations management information system was compatible with other systems. In addition, 74.3% of the respondents agreed that the management information system was flexible enough to support the growth of the firm and 86% agreed that the management information system of the firm had been crucial in delivering innovative customer services. The mean score for the response for this section was 3.90 which indicates that majority of the respondents agreed that technology was a key determinant of profitability opportunities for retail investors.

The study findings are consistent with those of Guiso and Jappelli (2005) who provided evidence that lack of awareness affect stock market participation. The determinants of awareness revealed the probability that survey respondents are aware of stocks, mutual funds and investment accounts are positively correlated with education, household resources, long-term bank relations and proxies for social interaction, and concluded that lack of financial awareness has important implications for understanding the stockholding puzzle and for estimating stock market participation costs. Trust and awareness might be positively correlated but affect stock market participation via two different channels. Awareness serves to reduce barrier of knowledge of the available assets. Mistrust tends to lower the expected return from an investment given that individuals need to take into account the possibility that a contract will not be respected by the counterpart.

**Table 4.39: Technology**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Likert Mean</b>
The organization has invested in a management information system which is easy to use.	5.3%	10.6%	6.4%	47.0%	30.7%	3.87
The organization has invested in a management information system which has enabled the minimization of administrative costs.	5.7%	11.0%	8.0%	51.1%	24.2%	3.77
The organizations management information system is compatible with other systems.	4.5%	11.7%	6.8%	44.7%	32.2%	3.88
The management information system is flexible enough to support the growth of the firm.	3.8%	12.1%	9.8%	43.2%	31.1%	3.86
The management information system of the firm has been crucial in delivering innovative customer services.	1.9%	6.4%	5.7%	48.9%	37.1%	4.13
<b>Average</b>	<b>4.2%</b>	<b>10.4%</b>	<b>7.3%</b>	<b>47.0%</b>	<b>31.1%</b>	<b>3.90</b>

#### **4.8.5 Relationship between Technology and Profitable Opportunities**

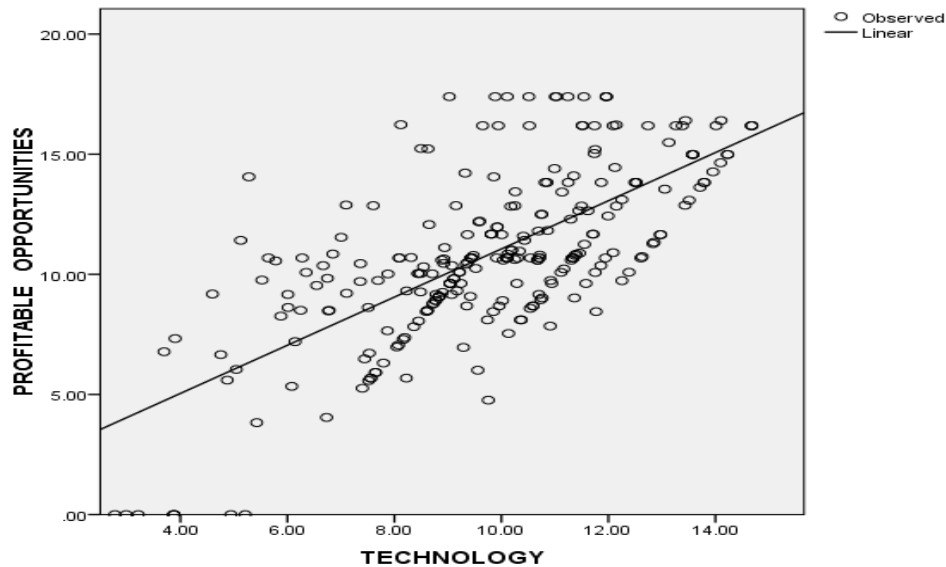
Table 4.40 shows the correlation results which indicate that there was a positive and significant relationship between technology and profitable opportunity. This reveals that any positive change in technology led to increased profitable opportunities for retail investors. The relationship has been illustrated by the correlation co-efficient of 0.694, implying a positive relationship between technology and profitable

opportunities for retail investors in Kenya. This was also evidenced by the p value of 0.000 which is less than that of critical value (0.05)

**Table 4.40: Relationship between Technology and Profitable Opportunities**

Variable		Profitable opportunities	Technology
Profitable opportunities	Pearson Correlation	1	
	Sig. (2-tailed)		
Technology	Pearson Correlation	0.694	1
	Sig. (2-tailed)	0.000	

The findings in Figure 4.7 show the relationship between technology and profitable opportunities for retail investors. The figure indicates that a positive relationship exists between technology and profitable opportunities. The study findings are consistent with those of Guiso and Jappelli (2005) who provided evidence that lack of awareness affect stock market participation. The determinants of awareness revealed the probability that survey respondents are aware of stocks, mutual funds and investment accounts are positively correlated with education, household resources, long-term bank relations and proxies for social interaction, and concluded that lack of financial awareness has important implications for understanding the stockholding puzzle and for estimating stock market participation costs.



**Figure 4.7: Linear Relationship between Technology and Profitable Opportunities**

Regression analysis was conducted to empirically determine whether technology was a significant determinant of profitable opportunities for retail investors. Regression results in Table 4.41 indicate the goodness of fit for the regression between technology and profitable opportunities was satisfactory. An R squared of 0.481 indicates that 48.1% of the variations in profitable opportunities for retail investors are explained by the variations in technology.

**Table 4.41: Model Summary for Technology**

<b>Indicator</b>	<b>Coefficient</b>
R	0.694
R Square	0.481
Std. Error of the Estimate	2.54840

The overall model significance was presented in table 4.42. An F statistic of 242.833 indicated that the overall model was significant. This was supported by a probability

value of (0.000). The reported probability of (0.000) is less than the conventional probability of (0.05). The model applied can significantly predict the change in the profitable opportunities for retail investors after an initial public offer in Kenya. The study, therefore, rejected the null hypothesis  $H_{04}$  at 95% confidence interval, meaning there was a significant relationship between technology and profitable opportunities.

**Table 4.42: ANOVA for Technology**

<b>Indicator</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	1577.363	1	1577.363	242.883	0.000
Residual	1701.518	262	6.494		
Total	3278.881	263			

The technology coefficients are presented in table 4.43. The results show that technology contributes significantly to the model since the p-value for the constant and gradient are less than 0.05. The fitted equation is as shown below

$$Y = 1.033 + 1.002X_4 \dots \dots \dots (4.4)$$

The findings imply that one positive unit change in technology led to a change in profitability at the rate of 1.002. This confirms the positive effect of technology on profitability. The study findings are consistent with those of Guiso and Jappelli (2005) who provided evidence that lack of awareness affect stock market participation. The determinants of awareness revealed the probability that survey respondents are aware of stocks, mutual funds and investment accounts are positively correlated with education, household resources, long-term bank relations and proxies for social interaction, and concluded that lack of financial awareness has important implications for understanding the stockholding puzzle and for estimating stock market participation costs.

**Table 4.43: Coefficients of Technology**

<b>Variable</b>	<b>Beta</b>	<b>Std. Error</b>	<b>t</b>	<b>Sig.</b>
Constant	1.033	0.044	23.477	0.000
Technology (X <sub>4</sub> )	1.002	0.064	15.585	0.000

## 4.9 Economic Resources

### 4.9.1 Reliability Tests

Using Cronbach's Coefficient Alpha test on economic resources, a coefficient of 0.907 was found as shown in Table 4.44. These results corroborates findings by Saunders Lewis and Thornhill (2009) and Christensen, Johnson and Turner (2011) who stated that scales of 0.7 and above, indicate satisfactory reliability. Based on these recommendations, the statements under the economic resources variable of this study were concluded to have adequate internal consistency, therefore, reliable for the analysis and generalization on the population.

**Table 4.44: Reliability Test for Economic Resources**

<b>Variable</b>	<b>Technology</b>
Number of items	10
Cronbach's Alpha	0.907

### 4.9.2 Sampling Adequacy

To examine whether the data collected was adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests, two main tests were performed namely; Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Barlett's Test of Sphericity. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000).

Findings in Table 4.45 showed that the KMO statistic was 0.900 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 1791.951 with 45 degree of freedom, at  $p < 0.05$ ). The results of the KMO and Bartlett's Test are summarized in Table 4.45. These results provide an excellent justification for further statistical analysis to be conducted.

**Table 4.45: Economic Resources KMO Sampling Adequacy and Bartlett's Sphericity Tests**

Kaiser-Meyer-Olkin Measure	0.900
Bartlett's Chi- Square	1791.951
Bartlett's df	45
Bartlett's Sig.	0

### 4.9.3 Factor Analysis

Factor analysis was conducted after successful testing of validity and reliability using KMO coefficient and cronbach alpha results. Factor analysis was conducted using Principal Components Method (PCM) approach. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total Variance analysis indicates that the 10 statements on economic resources can be factored into 1 factor. The total variance explained by the extracted factor is 56.05% as shown in Table 4.46.

**Table 4.46: Economic Resources Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.606	56.056	56.056	5.606	56.056	56.056
2	1.605	16.052	72.108			
3	0.633	6.33	78.438			
4	0.486	4.858	83.296			
5	0.415	4.154	87.45			
6	0.326	3.262	90.711			
7	0.296	2.957	93.668			
8	0.26	2.603	96.271			
9	0.212	2.117	98.388			
10	0.161	1.612	100			

Extraction Method: Principal Component Analysis.

Table 4.47 shows the factor loadings for economic resources statements. All the ten factors attracted coefficients of more than 0.4 hence all the statements were retained for analysis. According to Rahn (2010) and Zandi (2006) a factor loading equal to or greater than 0.4 is considered adequate. This is further supported by Black (2002) who asserts that a factor loading of 0.4 has good factor stability and deemed to lead to desirable and acceptable solutions.



**Table 4.47: Economic Resources Factor Analysis Component Matrix**

<b>Statement</b>	<b>Component</b>
The firms profitability has increased over the last five years	0.456
The firmø profitability is better compared to peers	0.405
The firms profitability has led to an increase in the market share of the firm	0.562
The firmø profitability has led to an increase in the dividends in the firm.	0.818
The firm has put in place marketing strategies to increase the profits levels	0.873
Through training programs, morale in the organization has improved.	0.805
Staff exchange programs with other regional revenue improves work knowledge and productivity	0.799
The organization offers short training in form of seminars	0.892
The firm conducts comprehensive interviews before hiring	0.864
The firm takes into consideration both work experience and academic and professional qualification before hiring and promoting	0.811

Extraction Method: Principal Component Analysis.

#### **4.9.4 Descriptive Analysis**

The fifth objective of the study was to establish whether the availability of economic resources in Kenya determines profitable opportunities for retail investors after IPOs. Table 4.48 shows that 87.9% of the respondents agreed that the firmsø profitability has increased over the last five years, 85.3% agreed that the firmø profitability is better compared to peers and 89.4% agreed that the firms profitability has led to an increase in the market share of the firm. Eighty one point one percent of the respondents agreed that the firmø profitability has led to an increase in the dividends in the firm, 85.6% agreed that the firm has put in place marketing strategies to increase the profits levels and 85.6% agreed that through training programs, morale in the organization has improved.

In addition 73.1% of the respondents agreed that staff exchange programs with other regional revenue improves work knowledge and productivity, 79.5% agreed that the organization offers short training in form of seminars and 77.3% agreed that the firm conducts comprehensive interviews before hiring. Finally, 79.6% of the respondents agreed that the firm takes into consideration both work experience and academic and professional qualification before hiring and promoting. The mean score for the response for this section was 4.06 which indicates that majority of the respondents agreed that economic resources was a key determinant of profitability opportunities for retail investors.

The findings agree with those in Lewis and Mackenzie (2000) who explored the impact of the exclusion of certain companies in their portfolios. This example is quite instructive on whether moral commitment, rather than economic incentives, is the engine of economic decision. These authors found that ethical investors are neither *ödevilsö* nor *ösaintsö* and can be both value-laden ethical and unethical. Thus, Lewis and Mackenzie indicated that people are willing to put their money where their morality is even though a direct link between money and principles may not exist. The findings of this study are supported by the research of Webley et al. (2001) who explored, through an experimental approach, the issue of the commitment of ethical investors. They found that ethical investors generally remain invested in ethical investment funds even when they perform badly. In the same vein, Lewis (2001) used a qualitative methodology (focus group) and puts forward the idea of moral dilemma, many investors called "ethical investors" are investing in both ethical and unethical funds.

**Table 4.48: Economic Resources**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Likert Mean</b>
The firms profitability has increased over the last five years.	1.5%	5.7%	4.9%	50.4%	37.5%	4.17
The firm's profitability is better compared to peers.	3.4%	6.4%	4.9%	43.6%	41.7%	4.14
The firms profitability has led to an increase in the market share of the firm.	0.4%	5.3%	4.9%	44.7%	44.7%	4.28
The firm's profitability has led to an increase in the dividends in the firm.	3.0%	11.0%	4.9%	46.6%	34.5%	3.98
The firm has put in place marketing strategies to increase the profits levels.	1.9%	7.6%	4.9%	47.0%	38.6%	4.13
Through training programs, morale in the organization has improved.	1.5%	8.7%	4.2%	49.6%	36.0%	4.1
Staff exchange programs with other regional revenue improves work knowledge and productivity.	3.4%	18.2%	5.3%	37.1%	36.0%	3.84
The organization offers short training in form of seminars	1.5%	13.3%	5.7%	42.8%	36.7%	4
The firm conducts comprehensive interviews before hiring.	4.2%	11.7%	6.8%	41.3%	36.0%	3.93
The firm takes into consideration both work experience and academic and professional qualification before hiring and promoting.	3.4%	10.2%	6.8%	43.2%	36.4%	3.99
Average	2.4%	9.8%	5.3%	44.6%	37.8%	4.06

#### **4.9.5 Relationship between Economic Resources and Profitable Opportunities**

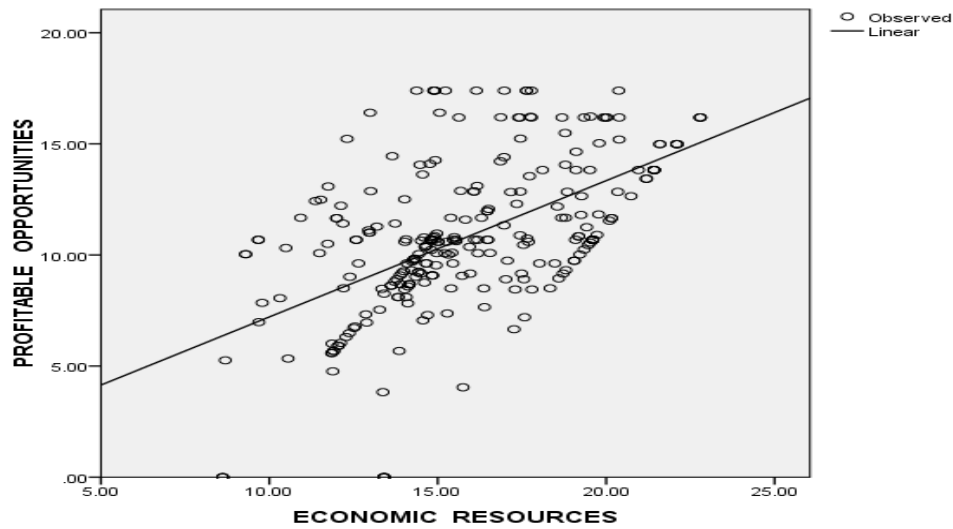
Table 4.49 shows the correlation results which indicate that there was a positive and significant relationship between economic resources and profitable opportunity. This

reveals that any positive change in economic resources led to increased profitable opportunities for retail investors. The relationship has been illustrated by the correlation co-efficient of 0.544, implying a positive relationship between economic resources and profitable opportunities for retail investors in Kenya. This was also evidenced by the p value of 0.000 which is less than that of critical value (0.05)

**Table 4.49: Relationship between Economic Resources and Profitable Opportunities**

Variable		Profitable opportunities	Economic Resources
Profitable opportunities	Pearson Correlation	1	
	Sig. (2-tailed)		
Economic Resources	Pearson Correlation	0.544	1
	Sig. (2-tailed)	0.000	

The findings indicate the relationship between economic resources and profitable opportunities for retail investors. The figure indicates that a positive relationship exists between economic resources and profitable opportunities. Figure 4.8 represents the findings. The findings of this study are supported by the research of Webley et al. (2001) who explored, through an experimental approach, the issue of the commitment of ethical investors and found that ethical investors generally remain invested in ethical investment funds even when they perform badly.



**Figure 4.8: Linear relationship between Economic Resources and Profitable Opportunities**

Regression analysis was conducted to empirically determine whether economic resources were a significant determinant of profitable opportunities for retail investors. Regression results in Table 4.50 indicate the goodness of fit for the regression between economic resources and profitable opportunities was satisfactory. An R squared of 0.296 indicates that 29.6% of the variations in profitable opportunities for retail investors are explained by the variations in economic resources.

**Table 4.50: Model Summary for Economic Resources**

Indicator	Coefficient
R	0.544
R Square	0.296
Std. Error of the Estimate	2.96767

The overall model significance was presented in table 4.51. An F statistic of 110.300 indicated that the overall model was significant. This was supported by a probability

value of (0.000). The reported probability of (0.000) is less than the conventional probability of (0.05). The model applied can significantly predict the change in the profitable opportunities for retail investors after an initial public offer in Kenya. The study, therefore, rejected the null hypothesis  $H_{05}$  at 95% confidence interval, meaning there was a significant relationship between economic resources and profitable opportunities.

**Table 4.51: ANOVA for Economic Resources**

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	971.423	1	971.423	110.300	0.000
Residual	2307.458	262	8.807		
Total	3278.881	263			

The economic resources coefficients are presented in table 4.52. The results show that economic resources contributes significantly to the model since the p-value for the constant and gradient are less than 0.05. The fitted equation is as shown below

$$Y = 1.078 + 0.613X_5 \dots \dots \dots (4.5)$$

The findings imply that one positive unit change in economic resources led to a change in profitability at the rate of 0.613. This confirms the positive effect of economic resources on profitability. The findings of this study are supported by the research of Webley et al. (2001) who explored, through an experimental approach, the issue of the commitment of ethical investors and found that ethical investors generally remain invested in ethical investment funds even when they perform badly.

**Table 4.52: Coefficients of Economic Resources**

Variable	Beta	Std. Error	t	Sig.
Constant	1.078	0.211	5.109	0.000
Economic Resources	0.613	0.058	10.502	0.000

#### 4.10 Model Summary

A multiple regression analysis was conducted to investigate the joint causal relationship between the independent and dependent variables. Regression results in table 4.53 indicated that the goodness of fit for the regression of independent variables and profitability opportunities for retail investors is satisfactory. An R squared of (0.958) indicated that (95.8%) of the variances in the profitable opportunities are explained by the variations in the determinants of profitable opportunities.

**Table 4.53: Model Fit for Profitable Opportunities**

<b>Indicator</b>	<b>Coefficient</b>
R	0.979
R Square	0.958
Std. Error of the Estimate	2.33853

ANOVA results were presented in table 4.54. The results indicated that the overall model was significant, that is, the independent variables were good joint explanatory variables/determinants for profitable opportunities (F=91.735, P value =0.000).

**Table 4.54: ANOVA for Profitable Opportunities**

<b>Indicator</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	2098.497	5	419.699	91.735	0.000
Residual	1180.384	258	4.575		
Total	3278.881	263			

Regression results in table 4.55 indicated that the relationship between profitable opportunities and industrial performance was positive and significant (b1=0.297, p

value, 0.000). This implies that an increase in the level of industrial performance by 1 unit leads to an increase in profitable opportunities by 0.297 units. Results indicated that corporate governance had a positive and significant relationship with profitable opportunities (b1=0.286, p value, 0.000). This implies that an increase in corporate governance effectiveness by 1 unit leads to an increase in profitable opportunities by 0.286 units.

The results further indicated that the relationship between profitable opportunities and economic performance was positive and significant (b1= 0.453, p value, 0.000). This implies that an increase in the level of economic performance by 1 unit leads to an increase in profitable opportunities by 0.453 units.

The results further indicated that the relationship between profitable opportunities and technology was positive and significant (b1= 0.531, p value, 0.000). This implies that an increase in the level of technology by 1 unit leads to an increase in profitable opportunities by 0.531 units.

The results further indicated that the relationship between profitable opportunities and economic resources was positive and significant (b1= 0.232, p value, 0.000). This implies that an increase in the level of economic resources by 1 unit leads to an increase in profitable opportunities by 0.232 units.

**Table 4.55: Model Summary and Parameter Estimates**

<b>Variable</b>	<b>Beta</b>	<b>Std. Error</b>	<b>t</b>	<b>Sig.</b>
Constant	-6.440	0.897	-7.182	0.000
Industrial performance	0.297	0.060	4.966	0.000
Corporate governance	0.286	0.043	6.619	0.000
Economic performance	0.453	0.045	10.067	0.000
Technology	0.531	0.092	5.755	0.000
Economic resources	0.232	0.051	4.552	0.000

After the analysis the model arrived at was as follows;

$$Y = -6.440 + 0.297X_1 + 0.286X_2 + 0.453X_3 + 0.531X_4 + 0.232X_5 + e \dots \dots \dots (4.6)$$



Profitable opportunities = -6.44 + 0.297 Industrial Performance+ 0.286 Corporate Governance + 0.453 Economic Performance + 0.531 Technology + 0.232 Economic Resources

The Y- intercept is -6.44 which is the predicted value of the effectiveness of profitable opportunities when all the others variables are 0, implying that without inputs of the independent variables the effectiveness of profitable opportunities would be -6.44.

Regression results on Table 4.55 indicate that the intercept was -6.44 meaning that the effectiveness of profitable opportunities was -6.44 without inputs of the independent variables of industrial performance, corporate governance, economic performance, technology and economic resources. The other coefficients tell about the relationship between independent and dependent variables.

## **CHAPTER FIVE**

### **5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of major findings of the study, relevant discussions, conclusions and the necessary recommendations. The study sought to assess the determinants of profitable opportunities for retail investors after an initial public offer in Kenya. The summary of key findings, conclusions and recommendations is done in line with the objectives of the study based on the output of the descriptive and inferential statistical analyses guided to test the research hypothesis of the study.

#### **5.2 Summary of the Findings**

##### **5.2.1 Industrial performance and Profitable Opportunities for Retail Investors**

The first objective of the study was to find out whether the industrial performance in Kenya determines profitable opportunities for retail investors after IPOs. Results indicated that industrial performance was a key determinant of profitable opportunities for retail investors. This was supported by the responses from the respondents who agreed that firm size had a significant impact on IPO pricing, larger firms are easier to value because of ease of forecasting cash flows and a firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price. In addition the respondents agreed that the firms have complied with the regulator on the directive to increase its core capital, retail shareholders are keen on core capital when making share investment decisions and institutional investors are particular on the magnitude of core capital when making investment decisions. Regression and correlation results indicated that there was a positive and significant relationship between industrial performance and profitable opportunities for retail investors.

### **5.2.2 Corporate Governance and Profitable Opportunities for Retail Investors**

The second objective of the study was to establish whether company's corporate governance in Kenya influences profitable opportunities for retail investors after IPOs. Results indicated that the firms had independent board committees in place to enhance effective monitoring, the firms had board committees which consist of independent non-executives directors and the board committees in their firms ensured that executive directors make decisions that are in the best interests of shareholders. Furthermore the respondents agreed that the firms had in place monitoring committees (audit, nomination, and compensation committees), Board Committees lead to better organization performance and firms gain legitimacy through prestigious board of directors. Regression results indicated that corporate governance was statistically significant in explaining profitable opportunities for retail investors in Kenya.

### **5.2.3 Economic Performance and Profitable Opportunities for Retail Investors**

The third objective of the study was to determine the effect of economic performance in Kenya on profitable opportunities for retail investors after IPOs. The study findings indicated that economic performance was a key determinant of profitability opportunities for retail investors. This was evidenced by the responses from the respondents who agreed that IPO firms are subject to uncertainties regarding quality of the firm because of missing track record and lack of public scrutiny, older firms have longer operating histories and face less uncertainty and younger firms have shorter operating history and are subject to great deal of uncertainty and high inflation rate leads to poor performance of firms. In addition the respondents agreed that increase in inflation leads to slow economic growth, inflation's biggest threat to shareholder value lies in the inability of most companies to pass on cost increases to their customers fully without losing sales volumes and the firms raise output prices above the level of inflation for them to remain competent. Regression and correlation results indicated that there was a positive and significant relationship between economic performance and profitable opportunities for retail investors.

#### **5.2.4 Technology and Profitable Opportunities for Retail Investors**

The fourth objective of the study was to find out whether the technology in Kenya determines profitable opportunities for retail investors after IPOs. The study findings indicated that the organization had invested in a management information system which was easy to use, the organization had invested in a management information system which enabled the minimization of administrative costs and the organizations management information system was compatible with other systems. In addition the respondents agreed that the management information system was flexible enough to support the growth of the firm and the management information system of the firm had been crucial in delivering innovative customer services. Regression and correlation results indicated that there was a positive and significant relationship between technology and profitable opportunities for retail investors.

#### **5.2.5 Economic Resources and Profitable Opportunities for Retail Investors**

The fifth objective of the study was to establish whether the availability of economic resources in Kenya determines profitable opportunities for retail investors after IPOs. Results indicated that the firm's profitability had increased over the last five years, the firm's profitability was better compared to peers and the firm's profitability had led to an increase in the market share of the firm. Furthermore the study findings indicated that the firm's profitability had led to an increase in the dividends in the firm, the firms had put in place marketing strategies to increase the profits levels and through training programs, morale in the organization has improved. Regression and correlation results indicated that there was a positive and significant relationship between economic resources and profitable opportunities for retail investors. The findings imply that economic resources were statistically significant in explaining profitable opportunities for retail investors.

### **5.3 Conclusions**

Based on the objectives and the findings of the study the following conclusion can be made. Although during the time of this study there were two brokerage firms under statutory management their clients were involved in the research.

The study concludes that firm size had a significant impact on IPO pricing and larger firms are easier to value because of ease of forecasting cash flows. Results further led to the conclusion that firms with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price. Regression results for bivariate analysis indicated that industrial performance is statistically significant in explaining profitable opportunities for retail investors in Kenya and in the multi variate regression results indicate that industrial performance is statistically significant in explaining profitable opportunities for retail investors in Kenya.

The study concludes that the company had an effective and independent board committee, the firms had in place monitoring committees (audit, nomination, and compensation committees), which lead to better organization performance and firms gain legitimacy through prestigious board of directors. It can be concluded from this study that there exists a positive significant relationship between corporate governance and profitable opportunities for retail investors. The results reveal that corporate governance was statistically significant in explaining profitable opportunities for retail investors in Kenya.

Economic performance was found to be a key determinant of profitable opportunities for retail investors. It can be concluded that IPO firms are subject to uncertainties regarding quality of the firm because of missing track record and lack of public scrutiny. Results led to the conclusion that older firms have longer operating histories and face less uncertainty and younger firms have shorter operating history and are subject to great deal of uncertainty and high inflation rate leads to poor performance of firms. This study therefore concludes that there exists a positive and relationship

between level of economic performance and profitable opportunities for retail investors in Kenya. This implies that economic performance is statistically significant in explaining profitable opportunities for retail investors in Kenya.

Technology was found to determine profitable opportunities for retail investors in Kenya. The quality of technology facilities embraced at any firm is very important because it influences the management of information and hence improves the firms performance at large. It was possible to conclude that information technology was highly emphasized in the brokerage firms. It was concluded that the firms had invested in a management information system which was easy to use and that the bank has invested in a management information system which has enabled the minimization of administrative costs. This study therefore concludes that there exists a positive and relationship between technology and profitable opportunities for retail investors in Kenya. This implies that technology was statistically significant in explaining profitable opportunities for retail investors in Kenya.

Economic resources were found to be statistically significant in explaining profitable opportunities for retail investors. It was therefore possible to conclude that the firms had put in place marketing strategies to increase the profits levels and through training programs, morale in the organization has improved. Results also led to the conclusion that profitability of the firms had increased over the last five years, the firm's profitability was better compared to peers and the firm's profitability had led to an increase in the market share of the firm. It was also possible to conclude that firm's profitability had led to an increase in the dividends in the firm.

#### **5.4 Recommendations**

Based on the results, findings and conclusions the following recommendations have been deciphered.

The study recommends that the firms should look into the several factors before announcing of IPOs this is because the size of the IPO firm has important implication

for pricing as it is an important determinant of stability of the firm. The management should also emphasize on ensuring that the firms are large and lack uncertainty as greater uncertainty of the firms value encourage investors to demand for lower IPO price as an incentive for risk.

The study recommends that the management should ensure that there are well structures governing all departments in the way they carry out their duties. This was to make the employees have their independence and freedom to carry out their duties without obligations and favours from the management.

The study also recommends that the management should enhance elaborate organizational structure that is working smoothly. The study also recommends that the company should continue to involve the stakeholders' participation in its operation to ensure quality service delivery to their customers.

The study recommends the company management to ensure that the company is upgraded with the technological changes taking place in the whole world. It is recommended that the management conducts a market survey of the technological facilities in use in other companies so as to minimize high competition from the competitors. It is also recommended that investment in Information technology be emphasized in the firms as it has an effect on the overall achievement of competitive advantage. Therefore the organization is urged to invest in management information systems which are easy to use and which facilitate minimization of administration and operational costs.

The study recommends that the firms should be more market oriented so as to ensure that the market information obtained from customers and the competitors helps the firm to keep an eye on the market. The study further recommends that the management should allocate adequate resources to all departments in the firm. In this, critical resources such as information and knowledge necessary for addressing customers problem must not be the preserve of a particular unit but organizations

must re-align its internal architecture and leverage such resources across the spectrum of the organization to enable people deal with customer issues promptly.

### **5.5 Areas for Further Study**

Future studies should focus on factors influencing individual investor behaviour during IPO share issues in Kenya whether the variables such as demographic characteristics (age, gender) and investment patterns can be used individually or in combination to differentiate among levels of men and women investment decisions and risk tolerance.



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## APPENDICES

### Appendix I: Introduction Letter

Dateí í í í í í í ..

P.O Box 27752 - 00506

Nairobi.

Dear Sir,

#### **RE: ACADEMIC RESEARCH PROJECT**

I am a Phd student at the University of Jomo Kenyatta and Technology University (JKUAT). I wish to conduct a research entitled **“Determinants of profitable opportunities for retail investors after an initial public offer in Kenya”**. A questionnaire was designed and used to gather relevant information to address the research objectives of the study. The purpose of writing to you is to kindly request you to grant me permission to correct information on this important subject from randomly selected members of staff.

Please note that the study was conducted as an academic research and the information provided would be treated in strict confidence. Strict ethical principles were observed to ensure confidentiality and the study outcomes and reports did not include reference to any individuals.

Your acceptance will be highly appreciated.

Yours Sincerely

**Maurice M. Gichuhi**

## Appendix II: Questionnaire

This questionnaire has statements regarding determinants of profitable opportunities for retail investors after an initial public offer in Kenya. Kindly take few minutes to complete the questionnaire as guided. Your responses will be handled confidentially and ethically.

Thank you for agreeing to participate in this academic study

### SECTION A: GENERAL /DEMOGRAPHIC DATA

1. Kindly indicate your gender

a) Male

b) Female

2. Please indicate the highest level of education you have ever attained

a) Secondary level

b) College level

c) University level

d) Post graduate level

3. How many years have you been in the stock exchange market?

a) Less than 2 years

b) 3 to 5 years

c) Over 5 years

## Section B: Profitable Opportunity for Retail Investors

This section aims at determining the profitable opportunities for retail investors after an initial public offer. Please indicate your agreement or otherwise with the following statements using the following likert scale.

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	Investors are driven by subjective beliefs about the value of the company.					
2	Investors are driven by the herding behaviour where they buy because others are buying.					
3	Trading behaviour can be explained by rational expectation theory.					
4	Excessive optimism drives asset values above fundamental.					
5	Over confidence, representativeness and conservatism to explain how individual investors under react or over react to past returns or fundamentals.					
6	Investors are willing to pay premium in excess of their rational belief if sentiment is biased towards newly issued stocks.					
7	Younger and growing firms are prone to investor sentiment because they are harder to arbitrage and are difficult to value, thus increasing chances of improper valuation.					

8. In your own opinion please indicate any other factors that determine profitable opportunities for retail investors after IPOs?

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### Section C: Industrial Performance

This section aims at investigating whether the industrial performance in Kenya determines profitable opportunities for retail investors after IPOs. Please indicate your agreement or otherwise with the following statements using the following likert scale.

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	Firm size has a significant impact on IPO pricing.					
2	Larger firms are easier to value because of ease of forecasting cash flows					
3	A firm with larger amount of total assets experience less uncertainty regarding its perpetuity, and hence commanding less under pricing, and hence higher offer price.					
4	The firm has complied with the regulator on the directive to increase its core capital.					
5	The firm has participated in mergers and engaged strategic investors in a bid to shore up its capital.					
6	Retail shareholders are keen on core capital when making share investment decisions.					
7	Institutional investors are particular on the magnitude of core capital when making investment decisions.					
8	Revaluation reserves should be included in core capital because it also reflects the worth of a bank.					

9. In your own opinion please indicate how industrial performance in Kenya determines profitable opportunities for retail investors after IPOs?

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**Section D: Corporate Governance**

This section aims at establishing whether company’s corporate governance in Kenya influences profitable opportunities for retail investors after IPOs. Please indicate your agreement or otherwise with the following statements using the following likert scale.

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	The firm has independent board committees in place to enhance effective monitoring.					
2	The firm has board committees which consist of independent non-executives directors.					
3	The board committees in our firm ensures that executive directors make decisions that are in the best interests of shareholders					
4	The firm has in place monitoring committees (audit, nomination, and compensation committees).					
5	Board Committees lead to better organization performance					
6	Firm gains legitimacy through prestigious board of directors.					
7	Directors association with other companies via board service enhance the prestige of the IPO firm.					
8	Board prestige is an important signal to potential investors.					
9	Where an IPO firm possess					

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
	prestigious board, the underwriter is likely to offer a balanced offer price.					

10. In your own opinion please indicate what is the effect of company's corporate governance in Kenya on profitable opportunities for retail investors after IPOs?

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**Section D: Economic Performance**

This section aims at determining the effect of economic performance in Kenya on profitable opportunities for retail investors after IPOs. Please indicate your agreement or otherwise with the following statements using the following likert scale.

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	IPO firms are subject to uncertainties regarding quality of the firm because of missing track record and lack of public scrutiny.					
2	In order to compensate investors for value uncertainty, investment bankers discount IPO offer prices.					
3	Older firms have longer operating histories and face less uncertainty.					
4	Younger firms have shorter operating history and are subject to great deal of uncertainty.					
5	Because of greater uncertainties surrounding the prospects of younger firms, underwriters apply greater offer price spread and lower offer prices as compared to older firms with larger operating history.					
6	High inflation rate leads to poor performance of firms.					
7	Increase in inflation leads to slow economic growth.					



No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
8	Inflation's biggest threat to shareholder value lies in the inability of most companies to pass on cost increases to their customers fully without losing sales volumes.					
9	The firms raise output prices above the level of inflation for them to remain competent.					
10	Inflation will cause the firm to reduce its capital budget, to attempt to reduce net working capital.					

11. In your own opinion please indicate how does economic performance in Kenya influence the profitable opportunities for retail investors after IPOs?

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.....**Section D: Technology**

This section aims at finding out whether the technology in Kenya determines profitable opportunities for retail investors after IPOs. Please indicate your agreement or otherwise with the following statements using the following likert scale.

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	The organization has invested in a management information system which is easy to use.					
2	The organization has invested in a management information system which has enabled the minimization of administrative costs.					
3	The organizations management information system is compatible with other systems.					
4	The management information system is flexible enough to support the growth of the firm.					
5	The management information system of the firm has been crucial in delivering innovative					

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
	customer services.					
6	The management information system of the firm has been crucial in assisting employees to enhance their performance and productivity.					

7. In your own opinion please indicate how the technology in Kenya influences the profitable opportunities for retail investors after IPOs?

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**Section E: Economic Resources**

This section aims at evaluating whether the economic resources in Kenya determine profitable opportunities for retail investors after IPOs. Please indicate your agreement or otherwise with the following statements using the following likert scale.

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
1	The firms profitability has increased over the last five years.					
2	The firmø profitability is better compared to peers.					
3	The firms profitability has led to an increase in the market share of the firm.					
4	The firmø profitability has led to an increase in the dividends in the firm.					
5	The firm has put in place marketing strategies to increase the profits levels.					
6	Through training programs, morale in the organization has improved.					
7	Staff exchange programs with other regional revenue improves work knowledge and productivity.					
8	The organization offers short training in form of seminars					
9	The firm conducts comprehensive interviews before hiring.					
10	The firm takes into consideration both work experience and academic					

No	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
	and professional qualification before hiring and promoting.					

11. In your own opinion please indicate how does availability of economic resources in Kenya influence the profitable opportunities for retail investors after IPOs?

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**Appendix III: List of Brokerage Firms at Nairobi Security Exchange**

1	Dyer & Blair Investment Bank Ltd
2	Francis Drummond & Company Limited
3	Ngenye Kariuki & Co. Ltd.
4	Suntra Investment Bank Ltd
5	Old Mutual Securities Ltd
6	SBG Securities Ltd
7	Kingdom Securities Ltd
8	Afrika Investment Bank Ltd
9	ABC Capital Ltd
10	Sterling Capital Ltd
11	Apex Africa Capital Ltd
12	Faida Investment Bank Ltd
13	NIC Securities Limited
14	Standard Investment Bank Ltd
15	Kestrel Capital (EA) Limited
16	Discount Securities Ltd
17	African Alliance Kenya Investment Bank Ltd
18	Renaissance Capital (Kenya) Ltd
19	Genghis Capital Ltd
20	CBA Capital Limited
21	Equity Investment Bank Limited

Source: NSE



**Appendix IV: Sampling frame**

	<b>Brokerage Firms at Nairobi Security Exchange</b>	<b>No. of Active Retail investors</b>	<b>Target Sample</b>
1	Dyer & Blair Investment Bank Ltd	15,126	21
2	Francis Drummond & Company Limited	5,872	8
3	Ngenye Kariuki & Co. Ltd.	3,842	5
4	Suntra Investment Bank Ltd	13,019	18
5	Old Mutual Securities Ltd	17,852	24
6	SBG Securities Ltd	6,792	9
7	Kingdom Securities Ltd	25,946	36
8	Afrika Investment Bank Ltd	8,642	12
9	ABC Capital Ltd	10,428	14
10	Sterling Capital Ltd	8,640	12
11	Apex Africa Capital Ltd	4,498	6
12	Faida Investment Bank Ltd	9,862	14
13	NIC Securities Limited	14,648	20
14	Standard Investment Bank Ltd	18,427	25
15	Kestrel Capital (EA) Limited	7,880	11
16	Discount Securities Ltd	5,946	8
17	African Alliance Kenya Investment Bank Ltd	7,560	10
18	Renaissance Capital (Kenya) Ltd	12,480	17
19	Genghis Capital Ltd	8,252	12
20	CBA Capital Limited	16,252	22
21	Equity Investment Bank Limited	58,282	80
	<b>TOTAL</b>	<b>280,246</b>	<b>384</b>

**Source: NSE**

**Appendix V: Companies that has floated shares in the last ten years**

	<b>Name of the Company</b>
1	Scan group Ltd
2	Safaricom Ltd
3	Equity bank Ltd
4	The Cooperative bank of Kenya Ltd
5	Kenya re-insurance corporation Ltd
6	Britam Ltd
7	Eveready east Africa Ltd
8	Express Kenya Ltd

**Source: NSE**