EFFECT OF SHARE RETENTION BY PRE- INITIAL PUBLIC OFFERING SHAREHOLDERS ON THE MARKET VALUES OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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DECLARATION

This research project report is my original work and has not been presented for a degree in any other university.

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This research proposal has been submitted for examination with my approval as university supervisor.

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DEDICATION

I dedicate this research project to my mum, late dad and my children for the special part they occupy in my life and the motivation they accorded me. I have no doubt that without the continued support from them this project would not have completed.

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ABSTRACT

The objective of this study was to establish the effect of share retention on market values of firms listed at the Nairobi Securities Exchange. The study also sought to establish the effect of market capitalization to initial valuation of initial public offers on subsequent market values. The study was motivated by the notably limited studies on the effect of ownership retention by pre initial public offering shareholders at the Nairobi Securities Exchange. The study employed a descriptive research design. A census was conducted on the ten initial public offering that occurred at the Nairobi Securities Exchange between the years 2000 and 2013. The study used secondary data obtained from the Nairobi Securities Exchange handbook and the Capital Markets Authority quarterly statistical bulletin. Regression technique was used to evaluate the effect of share retention by pre initial public offer shareholders and the ratio of market capitalization to initial public offer initial valuation on market values of companies listed at the Nairobi Securities Exchange. The regression model was evaluated using the coefficient of determination R^2 while the overall significance of the model was evaluated using an F-test at the 5% level of significance. The significance of independent variables was evaluated using t-test at 5% significance level. The study found that at the Nairobi Securities Exchange the pre-initial public offer shareholders on the average retained 62% of the shares in the public company. The ratio of market value of the companies relative to initial valuation of the initial public offer was found to be 1.77 times on the average. The regression analysis resulted in a coefficient of determination R^2 of 33.5%. The proportion of shares retained and the ratio of market capitalization to initial valuation of public offers explained 33.5% of the variation in market values of companies conducting initial public offer at the Nairobi Securities Exchange. The proportion of shares retained by the pre-initial public offer shareholders was found to have a positive effect on the market value of listed companies. The result of t-test for the significance of the retention ratio indicated that the result was statistically significant at the 5% level. It was also found that ratio of market capitalization to initial value of initial public offer had a positive effect on market value of companies. The result of t-test for the significance of this effect indicated that the result was significant at 5% level of significance. The F-test for the significance of the overall regression indicated that the regression was significant at the 5% level. The study concluded that share retention by the pre initial public offering shareholders had a positive and statistically significant effect on the market value of the companies. It also concluded that the ratio of market capitalization to the initial valuation of public offer at the Nairobi Securities Exchange had a positive and significant effect on market values. The study recommends that since there existed a positive and statistically significant effect on market value of companies going public due to the proportion of shares retained by the pre-initial public offer shareholders, the proportion of shares retained by the initial shareholders can be relied upon as an indicator of likely future value of the firm. Also since there was a positive and statistically significant effect on market value of companies going public the study recommends that on the average firms conducting initial public offer at the Nairobi Securities Exchange experience an increase in value in the long term.

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LIST OF ABBREVIATIONS

CMA: Capital Market Authority

NSE: Nairobi Security Exchange

IPO: Initial Public Offering

EBIDTA: Earnings before Interest Depreciation and Taxes

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

An initial public offering (IPO) is a financing instrument which emerges when a privately owned company sells their stocks to the public for the first time (Bodie, Kane and Marcus, 2009). Similarly, Ritter (1998) defined initial public offering (IPO) as a security which is sold to the general public for the first time, with the expectation that a liquid market will develop. IPO is the first opportunity for a firm's founders and initial investors to realize the value of their ownership stake in a firm. The IPO fundamentally alters many characteristics of a firm, but none more so than its ownership structure. Mello and Parsons (1998) state going public is a strategic decision and it is crucial to allocate the shares to be sold keeping the final ownership structure in mind. At the IPO, entrepreneurs (or generally insiders) can, for the first time in the lifecycle of the firm, offer shares to dispersed private investors and thereby significantly reduce their personal under diversification. However, in practice the pre-IPO owners do not exit fully at the IPO date and they retain directly large blocks of shares (Lin and Smith, 1998).

Leland and Pyle (1977) signaling theory has its basis on the existence of information asymmetry between the issuers and investors. Because the founders of the company know more about the future cash flows of the firm than the outside investors, retention of shares acts like a signal of firm's good quality. The level of retained equity by the owners signals to investors the credibility of the company and the expected future prospects of the company. Higher levels of retained equity signals greater confidence by the issuer in the firm's future prospects and may help in mitigating the asymmetric information problems between the issuers and the potential investors. Retained ownership act as a signal to communicate private favorable information to investors.

Espenlaub and Tonks (1998) suggest that the pre-IPO owners of the high quality firms try to retain shares in the IPO process since they want to make up for their loss from underpricing by a wealth gain coming from the retained shares.

In Kenya companies seeking to raise capital from the public do so by seeking listing at the Nairobi securities exchange. Nairobi securities exchange has experienced an increase in IPO activity over the last decade as companies sought equity capital from the members of the public. The listing regulations at the Nairobi securities exchange requires that companies making initial public offers must ensure that a minimum of 20% of the share capital is offered to the public (NSE, 2004). This provision allows the pre-IPO shareholders to retain up to 80% of the shares. This study seeks to establish the effect of shares retention by pre-IPO shareholders in this market.

1.1.1 Share Retention

Ritter (1998) notes that in going public, an issuing firm will typically sell 20-40% of its stock to the public. This result in between 60 to 80% of the shares being retained by the pre-ipo shareholders. An immediate consequence of issuing shares through an IPO is the greater dispersion of shareholdings. However insiders typically retain large blocks directly after the IPO. Initial public offerings (IPOs) represent an important step in the process of separating ownership and firm control. However, in practice the pre-IPO owners do not exit fully at the IPO date (Lin and Smith, 1998). Cao (2011) found that founders retain a significant equity stakes three years post-flotation. This leaves insiders clearly underdiversified, although enormous oversubscription, which was common for most IPO transactions in this period, indicates that diversification to a greater extent would have been possible.

Ritter (1998) argue that when firms are valued higher, they can issue fewer shares to meet their capital needs while underpricing results in the firm issuing more shares to raise a specified amount of capital. As a result of how the shares are valued, higher valuation causes higher retention and lower valuation will result in lower retention.

1.1.2 Market Values

Pandey (2004) defines market value of a security as the current price at which the security is being sold or bought in the market. Market value per share is expected to be higher than the book value per share for profitable growing firms. Where the capital markets are efficient and in equilibrium, market value should be equal to present value of a shares expected cash flows. Ross, Westerfield and Jaffe (1990) assert that market price of a share of common stock is the price that buyers and sellers establish when they trade the stock. The market value of common equity also referred to as market capitalization is the market price of a share multiplied by the number of shares outstanding.

Pinto, Henry, Robinson and Stowe (2002) describe two approaches to equity valuation, one based on firm fundamentals and the other based on the method of comparables. The fundamental approach to determining market value of equity involves obtaining the present value of cash flows generated by the security while the method of comparables estimate the value of a stock on the basis of the value at which comparable assets are trading at. Ritter (1998) notes that valuing IPOs is no different from valuing other stocks. Such valuations rely on the approaches of discounted cash flow (DCF) analysis and comparable firms' analysis. However because many IPOs are of young growth firms in high technology industries, historical accounting information

is of limited use in projecting future profits or cash flows. Thus, a preliminary valuation may rely heavily on how the market is valuing comparable firms.

1.1.3 Share Retention and Market Values

Kim and Ritter (1999) noted that the market value of IPOs quite relevant from an economic efficiency perspective; the IPO is the first opportunity that managers of such (usually young) companies get to observe price signals from the public capital markets. Such signals can either affirm or repudiate management's beliefs regarding the firm's value. Espenlaub and Tonks (1998) suggest that according to the signalling effect of ownership retention, the pre-IPO owners of the high quality firms try to retain shares in the IPO process since they want to make up for their loss from underpricing by a wealth gain coming from the retained shares. The pre-IPO owners are believed to retain share only if they are optimistic about the firm's future cash flows. This assumption on the existence of private information for the advantage of the shareholders suggests a positive relation between equity retention and IPO firm value.

Ofek and Richardson (2003) provide an alternative explanation of the relationship between ownership retention and market value. Taking an economics perspective, under the assumption of downward sloping demand curve for shares, high retention rates imply fewer shares available for trading. This makes the shares behave like a scarce commodity and their price increases. Thus high retention rate have a positive relationship with firms value.

1.1.4 Nairobi Securities Exchange

In 1954 the Nairobi securities exchange was constituted as a voluntary association of stockbrokers registered under the Societies Act. The NSE is a stock market that has been characterized by humble beginnings and it has grown considerably over time. The NSE successfully instituted the central securities depositories (CSD) in November 2004 and installed an automated trading system (ATS) in November 2007. The exchange is also undergoing restructuring of its governance system through demutualization. Characterized by its liquidity, market capitalization and turnover, the NSE may be classified as both emerging market and frontier market. NSE is therefore a model market in view of its high returns, vibrancy and well developed market structure. It therefore, raises interest and sets a precedent for comparison with other emerging markets in Eastern Africa and the world at large (Ngugi, 2003).

Over the last decade the Nairobi securities exchange was characterized by a quite active market in initial public offerings (IPOs), the mechanism whereby organizations obtain a first public listing of their shares. The NSE provides a primary market where companies seeking equity capital can sell shares to the public. Initial public offering occurs in the primary market and companies can obtain listing in the main market or the alternative investment segment. In the period between January 2000 and March 2014 ten IPOs have been witnessed in the primary equities market raising approximately Kenya Shillings 73 billion. The subscription level has ranged between 60%- 830% (CMA, 2014).

1.2 Research Problem

Ritter (1984) notes that most companies start out by raising equity capital from a small number of investors, with no liquid market existing if these investors wish to sell their stock. An initial

public offering (IPO) is the first opportunity for a firm's founders and initial investors to realize the value of their ownership stake in a firm. Initial public offerings (IPOs) represent an important step in the process of separating ownership and firm control. At the IPO, entrepreneurs (or generally insiders) can, for the first time in the lifecycle of the firm, offer shares to dispersed private investors and thereby significantly reduce their personal underdiversification. Nevertheless, insiders typically retain large blocks directly after the IPO (Lin and Smith, 1998). Espenlaub and Tonks (1998) argue that the pre-IPO owners of the high quality firms try to retain shares in the IPO process since they want to make up for their loss from underpricing by a wealth gain coming from the retained shares.

Zheng, Ogden and Jen (2002) notes at the IPO, entrepreneurs can, for the first time in the lifecycle of the firm, offer shares to dispersed private investors and thereby significantly reduce their personal underdiversification. Nevertheless, insiders typically retain large blocks directly after the IPO. The Nairobi securities exchange provides an avenue for companies to raise capital by selling shares to the public by conducting initial public offering. Initial public offer also provides an opportunity for the company founders to liquid their investment and diversify their investments. However the pre-IPO share holders retain most their shares in the companies going public. It is important to determine the effect of share retention by the pre-IPOs share owners at the NSE.

The effect of share retention by the pre-IPO shareholders has been examined extensively in developed markets. Downes and Heinkiel (1982) noted that the value of initial public offering firms is positively related to the proportion of shares retained by the entrepreneurs. Espenlaub

and Tonks (1998) found that the pre-IPO owners of the high quality firms try to retain shares in the IPO process since they want to make up for their loss from underpricing by a wealth gain coming from the retained shares. Ozcelik (2014) studied the effect of retained ownership on the value of the initial public offerings (IPOs) in Turkey, an emerging market. The study concluded that initial valuation increases with ownership retention signal at the IPO stage. Locally studies on the effects of IPO firms have focused mainly on the underpricing phenomenon, factors contributing to underpricing and the long run performance. Lishenga and Ndatimana (2012) documented statistically and economically significant initial returns averaging 43.1%, the study concluded significant underpricing in Kenya IPO market. Marangu and Moronge (2013) found that the pricing factors that affected the firms going public were offer price, efficient capital market and subsequent market performance. Studies on the effect of ownership retention by pre-IPO shareholders at the Nairobi securities exchange are notably limited, thus the motivation of this study. The study sought to fill the gap by examining the effect of share retention by the pre-IPO shareholders on market value of companies by addressing the following question; How do share retention by the pre-IPO shareholders affect market value of firms at the NSE?

1.3 Research Objective

To establish the effect of share retention on market values of firms listed at the Nairobi Securities Exchange.

1.4 Value of the Study

Investors in IPO shares should be more concerned about the original shareholders' stockholding after the IPO because this information has an important bearing on the pricing of the IPOs.

Investor awareness of the effect of share retention by the pre-IPO shareholders have an important implication for the outside investors in evaluating whether and how to participate in such offers.

Regulators and policymakers who have the responsibility of protecting investors who participate in IPOs may find the results of this study informative in dealing with the kind of information that issuers are required to clearly disclose in the prospectus and regulating how the pre-IPO shareholders deal with their shares in the aftermarket. Information from the prospectus provides signals to investors. Since outsiders are less informed than insiders, outsiders try to interpret or look for signals in insiders' decisions and actions. Such information should therefore be properly communicated.

The study adds to the existing knowledge concerning IPO markets. It will also serve as a basis for future research by re-examining the relationship by employing different measures of shareholders' retention, examining whether the lock-up provision imposed on insiders have influence of shareholders' retention, examining whether the influence of retention on underpricing is limited to the first day of trading or whether it also influences the firm's performance in the long run.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviewed various theories expounded to explain the rationale for the retention of shares by the pre-IPO shareholders and how share retention affects valuation as well as the related empirical evidence. The chapter was organized as follows; discussion of the relevant theories followed by the empirical review and a summary of the literature concluded.

2.2 Theoretical Review

Several theories have been advanced to explain the relationship between shares retained and valuation of initial public offering. Largely these theories centre on information asymmetry between corporate insiders and the investing public. The following section reviews some of the key theories.

2.2.1 Signaling Theory

Leland and Pyle (1977) constructed a firm valuation model in which the current value of a firm is a function of the fraction of equity retained by the entrepreneur. They assumed that the entrepreneur knows the expected future cash flow of the firm and that potential investors do not. It is costly for entrepreneurs to retain a significant ownership interest in their firms because by doing so they forgo diversification of their personal portfolios. Therefore, they will retain a Significant ownership interest only if they expect the future cash flows to be high relative to their firms' current value, so that rational investors the fraction of equity retained by the entrepreneur, as a signal of firm value.

Leland and Pyle (1977) state that a manager owning shares of a company is unintentionally signaling that the firm has a high value. Since the founders of the company know more about the future cash flows of the firm than the outside investors, retention of shares acts like a signal of firm's good quality. The pre-IPO owners are believed to retain share only if they are optimistic about the firm's future cash flows. This assumption on the existence of private information for the advantage of the shareholders suggests a positive relation between equity retention and IPO firm value. Downes and Heinkel (1982) found that initial market valuation is increasing with an increase in the percentage of ownership retained by the entrepreneur. Ritter (1984) also suggested a positive relationship between retained ownership and firm value but he pointed out that this could also be the result of wealth or agency effect rather than signaling.

2.2.2 Agency Theory

Agency theory is concerned with the relationship between corporate ownership structure and firm value. Jensen and Meckling (1976) were the first to formally point out the incentive effect of inside ownership as a solution to agency problems arising out of the separation of ownership and control. Inside ownership aligns the manager's interest with those of the owners, which decreases agency costs and, in turn, transfers into an increased market value of the firm.

Initial public offering results in a dispersed ownership structure as a companys' shareholders base widens. The ownership structure is important in the sense that the attitude of pre-IPO owners towards internal control and the change in ownership structure may affect IPO firm value. According to the agency hypothesis (alignment-of interest hypothesis), higher ownership retention by managers reduces their incentives to undertake non-value maximizing projects (Jensen and Meckling, 1976). Due to a reduction of agency costs, the value of a firm rises as more shares are retained by the pre-IPO shareholders especially if they are the managers as well.

As a consequence executives and outside shareholders have more conflict of interest when executives' stakes decrease, which is associated with inferior performance. On the contrary, by retaining equity, executive directors signal higher value for the firm to outside investors.

La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2002) studied the effect of bonding of management on agency costs by retaining an ownership stake of the IPO firm. They found that retained ownership increases the IPO firm value in the sense that they provide a guarantee that the manager will make decisions considering the goals of the company rather than his own benefits because he can internalize the value effects of his decision about the company through retained ownership. Due to the decreased agency cost, the price the investors are willing to pay for the IPO shares will rise.

2.2.3 Entrenchment Hypothesis

Fama and Jensen (1983) proposed a value-decreasing entrenchment effect of inside ownership. If inside ownership is large, managers have the power to create a hold-up problem and extract private benefits at the cost of other shareholders. Management perquisites, the reduction of a takeover threat, and the impediment of the market for managerial labor are some examples of those private benefits. Of special relevance in the IPO context is the personal utility an entrepreneur might gain by being in charge of his own firm, although other managers might be more capable for his job. Stulz (1988) combined the entrenchment effect with an additional positive takeover premium effect. Stock prices increase because potential raiders have to increase a takeover premium to overcome managerial entrenchment.

Pegano et al (1998) notes that when a company goes public, usually a group of shareholders retain the controlling share of the company. The controlling shareholder generally manages the company. In such a case, the conflict of interest is between the controlling shareholder and the minority shareholders, not between managers and the generality of shareholders. Dyck and Zingales (2004) notes that large shareholders may as well act for their own private benefits which cause a conflict of interest between large shareholders and minority shareholders. The level of their pursuing those private benefits determines an increase or a decrease in firm value (Holderness, 2003). Only if the large shareholders use their control power for shared benefits, the value of the firm is positively related with the firm value and the level of concentrated ownership (Lemmon and Lins, 2003).

2.3 Determinants of Market Valuation

Graham and Dodd (1934) noted that the market value of a company is firstly determined by market value of the existing tangible assets. They noted that since the book value of an asset in the balance sheet reflects its historical cost, it might deviate significantly from market value if the earning power of the asset has increased or decreased significantly since its acquisition and needs therefore to be adjusted. The market value of a stock depends on the current earnings that the company is able to generate with its assets. They assumed that the current earnings correspond to the sustainable level of distributable earnings and these earnings remain constant over the infinite future.

William (1938) proposed that the market value of a security depends on the cash flow the business generates discounted at the appropriate required rate of return. A number of variations

exist for the cash flows used to determine the value common shares. Gordon (1962) developed the dividend discount model. According to this model the market value of a stock is determined by the stream of dividends that the stock generates discounted at the appropriate discount rate. The dividends represent the cash flow that accrues to the investor.

Pinto, Henry, Robinson and Stowe (2002) indicate the market value of an asset depends on the value at which comparable assets trade. They call this application of the law of one price- the economic theory that two similar assets should sell for similar prices. The price earning multiple is the most commonly used method of comparables. The market value of an asset depends on its price earnings ratio. Anderson and Brooks (2005) states that the price earnings ratio reflects the price that the market is willing to pay for a shilling of earnings of the share. It reflects the amount that investors are willing to pay for a shilling of earnings in the company. In application of the law of one price the price of a stock is determined by the price at which comparable stocks are trading using the pricing earnings ratio.

2.4 Empirical Review

Zheng, Ogden and Jen (2002) proposes that in an initial public offering (IPO), pre-IPO owners make decisions regarding share retention, share lockup, and underpricing to improve liquidity, which in turn increases the value of shares they retain. They indicate that in an initial public offering (IPO), pre-IPO owners make decisions regarding share retention, share lockup, and underpricing to improve liquidity, which in turn increases the value of shares they retain. They argue that liquidity is negatively related to the proportion of shares retained by pre-IPO owners, they predict that IPO underpricing is positively related to the proportion of shares retained, as an

offset. In addition, they fnd that, for IPOs with a lockup restriction, underpricing is more substantial and the positive relation between share retention and underpricing is much stronger.

Petersen (2007) investigated the relation between inside ownership and valuation of German initial public offerings from 1997 to 2002. The study sought to rationalize the under diversification of insiders in the presence of an informational advantage toward investors. The study found that the absolute level of retained ownership had a positive though non linear relationship with IPO valuation. However this relationship turns into a linear positive impact in a simultaneous estimation of IPO valuation, ownership retention and the divestment of insiders, a phenomenon which the study attributes to the reverse wealth effect. The study confirms the signaling hypothesis of retained inside ownership.

Zheng and Stangeland (2007) studied a sample comprising IPOs from 1982 to 1998 using the Securities Data Corporation (SDC) database. Their results indicated that IPO underpricing is positively related to post-IPO performance (measured by growth in sales and EBITDA), which supports the notion that underpricing is greater for better quality firms. In their study, the retention ratio was the control variable, based on the argument that shareholders' higher pre-IPO equity retention signals a higher quality for post-IPO performance. Their result showed that retention was not significant in explaining the post- IPO performance. The authors explained that this result could stem from retention and underpricing having a high correlation coefficient such that underpricing absorbs the influence of retention on the firm's future growth in sales and EBITDA. When they dropped underpricing from the regression model, they found that retention

becomes positive and significant in explaining the post-IPO sales and EBITDA growth. They conclude that retention signals the quality of the firm.

Kipngetich, Kibet, Guyo and Kipkoskey (2011) investigated determinants of Initial Public Offer (IPO) pricing in Kenya. They explored the extent to which investor sentiment, post-IPO ownership retention, firm size, board prestige and age of the firm affect IPO pricing of firms listed on Nairobi Stock Exchange between 1st January, 1994 and 31st December, 2008 in Kenya. Average under pricing of 49.44% was observed in Kenyan IPOs for the period under study. The study concluded that public information disclosed in the prospectus is insignificantly mirrored in IPO offer prices and that rational theory cannot explain the effect of investor sentiment in IPO market in Kenya.

Lishenga and Ndatimana (2012) analysed the performance of initial public offerings at the Nairobi stock exchange. The objectives of the study were to ascertain whether IPOs at the NSE exhibit the initial underpricing phenomenon and to evaluate long-run performance of IPOs in Kenya. The study documented statistically and economically significant initial returns averaging 43.1%, the study concluded significant underpricing in Kenya IPO market. In addition the study also documented that substantial amounts of money are left on the table in every IPO, even for the undersubscribed IPOs. The study reported that immediately after the first day of trading, IPOs show no regularity in their returns. The study did not find evidence of under or over performance in the long run.

Marangu and Moronge (2013) carried out a study to analyze factors affecting a successful initial public offer at the NSE and find out whether to agree with previous findings that a successful IPO is significantly influenced by the cost of going public, pricing of the IPO, Governance issues and the timing of an IPO. The study found out that the pricing factors that affected the firms going public were offer price, efficient capital market and subsequent market performance. Further, governance issues also affected the success of IPO in Kenya and also for the success of IPOs, timing was very important.

Soet and Ngugi (2013) sought to establish the factors influencing the underpricing of initial public offers in an emerging market with reference to the Nairobi Security Exchange. The study focused on reviewing four variables; underwriters, ownership, value lost and the regulatory effect. The study found that underwriters can allocate underpriced shares to investors in exchange for commission business; that underwriters influence underpricing of initial public offers in an emerging market to a high extent. That ownership influences underpricing of initial public offers in an emerging market to a high extent. The study concludes that there existed a significant positive relationship between fractional ownership and company value.

Ozcelik (2014) studied the effect of retained ownership on the value of the initial public offerings (IPOs) in Turkey, an emerging market. The study found that ownership retention had a positive signal on valuation for the sample of 67 IPOs listed on the Istanbul stock exchange between 2000 and 2010. It concluded that initial valuation increases with ownership retention signal at the IPO stage. In addition the study suggested that primary share issuing is a stronger signal on firm value that affects IPO firm value positively.

2.5 Summary of Literature

The proportion of shares retained by the pre-IPO shareholders is seen as an important signal of the entrepreneur confidence in the value of the firm. In their effort to signal their firms' value would increase the underpricing so that low-quality firms will not be able to do the same as the imitation cost is just too high. The level of retained equity by the owners signals to investors the credibility of the company and the expected future prospects of the company. Higher levels of retained equity signals greater confidence by the issuer in the firm's future prospects and may help in mitigating the asymmetric information problems between the issuers and the potential investors. Issuers signal higher quality in IPOs by under pricing as well as retaining some of the firms' shares in their personal portfolio.

A number of studies have evaluated the underpricing phenomenon and the longrun performance of newly listed firms as well as the factors that influence pricing of initial offers at the Nairobi securities exchange. However studies on the effect of ownership retention by pre-IPO shareholders at the Nairobi securities exchange were notably limited, thus the motivation to conduct a research in this area. The study attempted to fill this gap examining the effect of share retention by the pre-IPO shareholders on market value of firms at the NSE.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter covered the research design and methodology that was used in the study. It also discussed the population from which the firms to be studied will be obtained in addition to how the data to be used in the study was collected and analyzed.

3.2 Research Design

A descriptive research design was used in this study. Kothari (2004) asserts that descriptive research method includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. This method is justified on the basis that the methods of research utilized in descriptive research are survey methods of all kinds, including comparative and regression methods. The researcher equally has no control over the variables; he can only report what has happened or what is happening. Regression technique was used as the analysis tool.

3.3 Population of Study

The target population consisted of the IPOs conducted at the Nairobi securities exchange between the years 2000 and 2013. During this period a total of ten IPOs were witnessed at the NSE, shown in appendix 2. A census study was carried out for the ten IPOs in the selected sub period. This period was selected because it was characterized by the most active IPO period at the Nairobi securities exchange. A list of companies listed in the NSE is shown in appendix 1. The study made make use of the capital markets authority quarterly statistical bulletin to establish the specific companies that conducted initial public offering over the period 2000-2013.

3.4 Data Collection

The study used secondary data. Data was obtained from the capital markets authority quarterly statistical bulletin and the Nairobi securities exchange handbook. For each company data was collected relating to the number of shares outstanding before the IPO, the number of shares offered to the public during the IPO, the offer price, the proceeds of the offer and the market price at the end of each year subsequent to the offer for five years.

3.5 Data Analysis

The empirical relation between market value of firm and pre-IPO owners' retention of shares was evaluated using the regression model described below. The model is based on that of Downes and Heinkel (1982).

$$LnVe_j=\beta_o +\beta_1\alpha_j+\beta_2F_j +\varepsilon_j$$

Where $LnVe_j$ is the natural logarithm of market capitalization for firm j at the end of each year

α is the proportionate ownership retained by the entrepreneurs

F is the proportion of market capitalization at the end of each year to the IPO valuation

ε is a residual term

Market capitalization of equity, Vej, was calculated annually for five years as the product of market price at year end and number of shares outstanding. The duration enabled the effect to be assessed over the long term. The proportion of market capitalization to the IPO valuation was calculated as the market value at the end of each year divided by the valuation of IPO. The proportionate ownership retained by entrepreneurs was calculated as the number of shares owned by the pre-IPO shareholders less the number of shares offered for sale in the IPO divided by the number of shares outstanding at the end of each year.

The coefficient of determination R^2 was used to determine the goodness of fit of the regression model. The overall significance of the model was evaluated by conducting an F-test at the 5% significance level while the significance of the individual regression coefficients was tested by carrying out a t-test at a 5% level of significance.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter focused on the analysis of the data collected and discussions of the findings. Data was collected from secondary source, the NSE handbook and the CMA quarterly statistical bulletin. The study targeted ten companies that conducted an IPO between the year 2000 and 2013. Nine firms were included in the study since data was unobtainable for one firm (Africa Lakes Ltd) that listed in 2000 and delisted in 2003. The data was analyzed using descriptive statistics and regression analysis and the results are presented in the sections that follow.

4.2 Descriptive Statistics

Table 1 below provides a summary of the descriptive statistics from the analysis.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Ln Market Cap	42	19.72223	26.12594	2.3035526E1	1.73656951
Retention Ratio	42	.380	.800	.62262	.128140
MktCap-Ipo value ratio	42	.180	9.920	1.77143	1.966791
Valid N (listwise)	42				

From table 1 it is to be noted that the average retention ratio by pre-IPO share holders at the NSE is approximately 62% with the lowest retention being 38% and highest at 80%. The average of market capitalization to the IPO valuation was noted to be 1.77.

4.3 The Effect of Shares Retention on Market Values

To evaluate the effect of shares retention on market values, the proportion of shares retained was regressed against the natural log of market capitalization of firms with the ratio of markets capitalization to the IPO valuation used as a control variable. The results are presented hereunder.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.578[a]	.335	.300	1.45247890

a. Predictors: (Constant), MktCap-Ipo value ratio, Retention Ratio

Table 2 provides a summary of the result of regression. The coefficient of determination, R-square for the model is 0.335. This indicated that change in retention ratio and change in the ratio of market capitalization to IPO valuation explained 33.5 of the variation in the firms market values. This indicates a reasonably good explanatory power of the regression.

Table 3: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.365	2	20.682	9.803	.000[a]
	Residual	82.278	39	2.110		
	Total	123.643	41			

a. Predictors: (Constant), MktCap-Ipo value ratio, Retention Ratio

b. Dependent Variable: Ln Market Cap

Table 3 provides the result from which the overall usefulness of the regression model was evaluated. The F ratio had a value of 9.803 with a significance level of 0.000. Since 0.000 is less than 0.05, the regression results were highly significant at the 5% level of significance.

Table 4: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.676	1.479		11.276	.000
	Retention Ratio	8.853	2.111	.653	4.193	.000
	MktCap-Ipo value ratio	.479	.138	.542	3.479	.001

a. Dependent Variable: Ln Market Cap

The natural logarithm of market capitalization was regressed on shares retained by the pre-IPO shareholders and the ratio of market capitalization to the IPO valuation. The regression coefficients are reported in table 1. Retention ratio had a coefficient of 8.853 with a significance level (p-value) of 0.000. The coefficient of retention ratio is statistically significant since it 0.000 is less than 0.05. Ratio of market capitalization to the IPO value was found to be 0.479 with a significance level of 0.001. This result is also significant at the 5% level since 0.001 is less than 0.05. The resulting regression model takes the form; Ln Market Cap=16.676+8.853α+0.479F where α and F are the retention ratio and the ratio of market capitalization to the IPO valuation.

4.4 Interpretation of Results

This study sought to establish the effect of share retention on market values of firms listed at the Nairobi Securities Exchange. From table 1 it is to be noted that pre-IPO share holders retain approximately 62% of the shares with a minimum retention of 38% and a maximum of 80%. Table 1 indicate that the ratio of market capitalization to IPO valuation was 1.77 on the average suggesting that the market value of the IPO firms was 1.77 times of the initial IPO valuation. The result of regression analysis in table 4 indicates that the proportion of shares retained had a positive effect on the firm's market value with a coefficient of 8.853. This suggested that firm's value is an increasing function of the proportion of shares retained by the pre-IPO share holders. The coefficient of share retention was significant at the 5% level since its p-value of 0.000 is less than 0.05. Market value of companies had a positive relationship with the ratio of market capitalization to the IPO valuation. From table the ratio of market capitalization to the IPO valuation has a coefficient of 0.479 with a significance level of 0.001. Since 0.001 is greater than 0.05, the result is significant at a 5% level.

The coefficient of determination for the regression model was found to be 0.335 as reported in table 1. This meant that ratio of shares retained by pre-IPO shareholders and ratio of market capitalization to the initial IPO valuation explained 33.5% of the variation in market value of firms that conducted an initial public offering. This indicated a reasonably good explanatory power of the regression model. From table 2 the F statistic had a significance 0.000 indicating that the overall regression model was statistically significant at the 5% level of significance since $0.000<0.05$.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter a summary of the findings from the study, conclusions and recommendations are presented. Also areas for further research are suggested.

5.2 Summary of Findings

This study sought to establish the effect of share retention by the pre-IPO shareholders on market values of firms listed at the Nairobi Securities Exchange. It also sought to establish the effect of ratio of market values to initial valuation of IPO. Key findings are summarized below.

5.2.1 Effect of Share Retention on Market Values

The study found that pre-IPO shareholders at the NSE retain on the average 62% (table 1) of the shares. Table 3 indicates a positive effect of share retention on market values with a coefficient of 8.853 and a significance level of 0.000. This result is statistically significant at the 5% since 0.000<0.05. The regressions coefficient of determination R-square was found to 0.335 (table 1), indicating that the share retention ratio and ratio of market value to the IPO valuation explained 33.5% of the variation in market value of companies. From table 3 the overall regression was found to be statistically significant because the F statistic had a significance value of 0.000 which being less than 0.05 indicated that the regression results were significant at the 5% level.

5.2.2 Effect of Market Capitalization to Initial IPO Valuation on Market Values

The study found that on the average the market value of companies was 1.77 times (table 1) of the initial IPO valuation. As reported in table 3 the ratio of market capitalization to IPO valuation was found to have a positive effect on market value with a coefficient of 0.479. The result was significant at 5% level because the p-value for this coefficient 0.001>0.05 (table 3).

5.3 Conclusions

This study sought to determine the effect of share retention by the pre-IPO shareholders on the market value of firms listed at the Nairobi Securities Exchange. The study concluded that share retention by the pre-IPO shareholders had a positive effect on effect on market value of firms listed at the Nairobi Securities exchange. Using a t-test it was noted that the effect was significant at a 5% level of significance.

The study also sought to establish the effect of market capitalization relative to the initial IPO valuation on market values of firms at the NSE. It was also found that the ratio of market capitalization to initial IPO valuation had a positive effect on the subsequent market value. The effect was found to be significant at 5% level of significance. The study concluded that share retention by the pre-IPO shareholders together with the ratio of market capitalization to initial IPO valuation explains 33.5% of the variation in market value.

5.4 Recommendations

This study recommends that the proportion of shares retained by the pre-IPO shareholders had a positive and statistically significant effect on the market value of firms conducting initial public offer at the NSE. According the proportion of shares retained can be relied upon in assessing the likely future value of the company. Also since there was a positive and statistically significant

effect on market value of companies going public the study recommends that on the average firms conducting initial public offer at the Nairobi Securities Exchange experience an increase in value in the long term.

5.5 Limitations of the Study

A possible major limitation of the findings of this study is the limited number of initial public offering evaluated. Nine IPO's may be far too few for a reliable inference to be drawn. Also variation in market capitalization may be explained by many more factors besides the two variables used in the study.

5.6 Suggestion for Further Study

Further study may seek to evaluate the relationship between share retention by the pre-IPO shareholders and the commonly under pricing phenomenon associated with initial public offering. Such as a study may also seek to establish whether pre-IPO shareholders trade their shares in the immediate IPO market. A similar study may be carried out involving more control variables.

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APPENDICIES

Appendix 1: Companies listed at the Nairobi securities exchange

AGRICULTURAL SECTOR	**MANUFACTURING AND ALLIED**
Eaagands	BOC Kenya ltd
Kakuzi	British American Tobacco ltd
Kapchorua tea company	Carbacid Investments ltd
Limuru tea company ltd	East African Breweries ltd
Rea vipingo plantation ltd	Mumias Sugar co ltd
Sasini ltd	Unga Group ltd
Williamson tea (K) ltd	Eveready E.A ltd
COMMERCIAL AND SERVICES	Kenya Orchards ltd
SECTOR	A.Bauman co ltd
Express Ltd	**INVESTMENT**
Kenya airways Ltd	City Trust ltd
Nation Media Group ltd	Olympia Capital ltd
Standard Group Ltd	Centum Investment ltd
TPS Eastern Africa (Serena) Ltd	Trans-Century ltd
Scangroup Ltd	**AUTOMOBILES**
Uchumi Supermarket Ltd	Car and General ltd
Hutching Beimer Ltd	CMC ltd
Longhorn (K) Ltd	Sameer Africa ltd
CONSTRUCTION AND ALLIED	Marshals ltd
Athi River Mining ltd	**TELECOMMUNICATIONS AND**
Bamburi Cement ltd	**TECHNOLOGY**
Crown Berger ltd	Access Kenya Group ltd
East African Cables ltd	Safaricom ltd
East African Cement ltd	**INSURANCE**
ENERGY AND PETROLEUM	Jubilee Holding ltd
Kenolkobil ltd	Pan Africa Insurance Holding ltd
Total Kenya	Kenya Re-Insurance Corporation ltd

Kengen ltd	CFC Insurance holding ltd
Kenya power and Lighting Co. ltd	British American Investment Co (K) ltd
	CIC Insurance Group
BANKING	
Barclays Bank ltd	
CFC Stanbic Holding ltd	
Diamond Trust Bank ltd	
Housing Finance	
Kenya Commercial Bank ltd	
National Bank of Kenya	
NIC Bank ltd	
Standard Chartered Bank ltd	
Equity Bank ltd	
Cooperative Bank ltd	

Source NSE

Appendix 2. Companies listed on the NSE between 2000 and 2013 by IPO

	Access kenya
African Lakes	Kenya Re
Mumias sugar company	Safaricom ltd
Kengen ltd	Co-op bank
Scangroup ltd	British American
Eveready	

Source CMA