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The Effect of Stock Splits on the Ownership Structure of Firms: Evidence from the Nairobi Stock Exchange

by

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DECLARATION

I declare that this is my original work and has not been submitted to any other University for any award.

Signed..... Date 10/11/2011

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This Research Project has been submitted with my approval as the University Supervisor.

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DEDICATION

First and foremost, this project is dedicated to my late parents Jonathan and Elidah. Long live wherever you are.

Secondly, this project is dedicated to my wife Patricia, my brothers Zackayo and Allan whose moral support and encouragement towards this study will remain to live in my living memory.

ABSTRACT

Many studies have been done on splits in the Kenyan market i.e. the Nairobi Stock Exchange and have confirmed increased volume of shares traded after split events. Increased trading which translates to post split high liquidity has also been evidenced. The opinion many investors have is that many retail investors will rush and dominate the ownership of the split counters because of the optimality. My project has confirmed this notion wrong. It has confirmed an increase in number of shareholders. The ownership base broadens but with very low or insignificant change in ownership proportion.

The insignificant change evidenced in ownership proportion is not strong enough to change the management of agency problems. For that, Kenyan splits tend to be weapons for take-over. Stock splits and number of shareholders are directly related. Ownership proportions for both Retail and Institutional investors are inversely related unlike foreign investors whose proportions in the Kenyan market increases with split.

The study confirms that a firm whose aim is to concentrate ownership should not attempt to split their stock because by not splitting, the firm will run on low managerial power. Low managerial power will always emerge where minority control is eminent. Thus, firms with lower ownership concentration like the Kenyan cases are the ones with large number of defense measures.

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ABBREVIATIONS

AMEX	American Stock Exchange
CMA	Capital Markets Authority
CMC	Cooper Motors Corporation
EA	East Africa
FI	Foreign Investors
ICDC	Industrial & Commercial Development Cooperation
IPO	Initial Public Offer
KCB	Kenya Commercial Bank
KENOL	Kenya Oil Limited
Ksh	Kenya shilling
LII	Local Institutional Investors
LRI	Local Retail Investors
NASDAQ	National Association of Securities Dealers Automated Quotation System
NMG	Nation Media Group
NSE	Nairobi Stock Exchange
NYSE	New York Stock Exchange
SSE	Stockholm Stock Exchange
Std	Standard
UK	United Kingdom
USA	United States of America

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

A stock split is one of the major decisions that companies make. They are undertakings that involve division of existing stocks into more shares, issuing to shareholders additional shares in proportion to their ownership. A split is a proportional reduction in the par value which affects only the outstanding units while the shareholders' total funds remain unchanged. Outstanding shares are those currently held by investors who are either individuals or institutions. The pioneering event study by Fama, Fisher, Jensen & Roll (1969) defined a stock split as an exchange of shares in which at least five shares were distributed for every four formerly outstanding. The stockholders got additional shares for every share held.

According to Watson & Head (2007), a share split, also known as stock split in the United States of America (USA), involves simultaneous reducing of the nominal value of each share and increasing the number of units in issue so that the balance sheet value is unchanged. Pike & Neale (2009) said that an alternative way of addressing the heavyweight status, i.e. prices above 10 dollars, of a share is to split the ordinary shares into a larger number with lower par value.

Theoretical Relationship between Split and Ownership Structure

Theoretically, stock splits were thought to be cosmetic corporate events as they merely involve division of shares and a reduction of a trading price without changing shareholders' wealth and relative shareholdings. Splits, therefore, do not worsen or improve investors' worth (Dennis & Strickland, 2003). Optimal theory indicates that managers use splits to re-align the share price to affordable range. This will lead my study towards two expectations. One of the theoretical expectations is post-split increase in ownership structure. Meaning, more investors will be able to afford split and by

extension, cheap stocks. The other expectation is that small investors who were unable to manage expensive stocks are favored. Many individual investors are expected to join the ownership by reducing the ownership level of institutional owners. As a result, the degree of individual ownership may have a negative effect on the management performance because of weak monitoring.

Essentially, a stock split does not change the capital structure of the firm, nor does it change the asset side of the balance sheet, except to the extent they associate with administrative costs, that require real resources for accounting, legal and paper work costs, plus increased listing fees by stock exchanges for listing the additional shares. Stock splits are a costly but effective signal of a firm's future prospects (Brennan & Copeland, 1988). They are costly because of the administrative costs of issuing the split and the increased transaction costs for investors. In practice, however, various research studies have proven that splits are associated with statistically significant real effect such as stock price revaluation, unusual volumes of trade, and return variances around the announcements and record dates

1.1.1. The Nairobi Stock Exchange

The capital markets in Kenya date back to 1950s when the Nairobi Stock Exchange (NSE) was established. However, for more than three decades the capital markets witnessed limited activity until 1989 when the Capital Markets Authority (CMA) was created through an Act of Parliament. The CMA was charged with the responsibility of promoting and facilitating the development of orderly, fair and efficient capital markets in Kenya whose main and only centre is the NSE, a platform where publicly quoted stocks, corporate and Government bonds are traded. It was formed in 1954 through incorporation as a voluntary organization of stock brokers (limited by guarantee) and now is one of the most active markets in Africa. This, therefore, sets NSE as the ground for ownership mix formation where individuals and institutions compete by taking positions in quoted companies.

1.1.2. How companies decide on Stock Splits

In Kenya, the provision of share split is under the Companies Act which provides for a company "to subdivide its shares, or any of them, into shares of smaller amount than is fixed by the memorandum, so, however, that in the subdivision the proportion between the amount paid and the amount, if any, unpaid on each reduced share shall be the same as it was in the case of the shares from which the reduced share is derived". Stock splits are proposed for recommendation by management to the board of directors who would later seek approval from shareholders in an annual general meeting. There must be enough shares authorized to affect a split. Onyango (1999) noted that stock splits and bonus issues occur when the board of directors authorizes a distribution of common shares to existing shareholders of the company. Distribution is done proportionately, hence shareholders end up with the proportionate ownership they had before the split or bonus issue.

1.1.3. Stock Splits and Stock Dividends

Stock splits and stock dividends are similar in several aspects. In particular, they are both corporate events in which each shareholder receives a certain number of new shares free of charge, whereby the stock price is reduced accordingly. Although both stock splits and stock dividends increase the number of equity shares outstanding, they do not provide the firm with new funds or its stockholders with any added claims to company assets (Baker, Phillips, & Powell, 1995). In a split, each old share is subdivided into a number of new shares with a reduced par value, leaving the total share capital unchanged. In the case of a stock dividend (bonus), a number of new shares are received for each share owned. These new shares have the same par value as the old ones, whereby the share capital increases proportionally with the size of the stock dividend. This is done by transferring retained earnings to the share capital, which has implications for the ability of a firm to pay out cash dividends in future. Stock dividend involves the transfer of equity from retained earnings to the capital account (Lamoureux & Poon, 1987).

1.1.4. Stock Splits and Reverse Splits (Consolidation)

Another version of stock splits is the "reverse" split. Although rare in other markets as it is often a ploy to prop up the share prices, it has never occurred in the Kenyan market. The procedure is typically used by stocks with low share prices that would like to increase prices to either gain more respectability in the market or to prevent the company from being de-listed from the stock exchange (Peterson & Peterson, 1992). Radicliffe, Gillespie, B & Gillespie, G. (1979) gave reasons for reverse splits as to reduce their registrars' fees and shareholders mailing costs, improve shares marketability, ease and speed with which a buyer can find a seller and vice versa, and as an informal device for conveying to shareholders about a firm's future earnings' prospects or dividend policies.

Woolridge & Chambers (1983) noted that a reverse split involves a substitution of one new share for a certain number of outstanding shares. The par value of the new shares is usually increased by the size of the split factor. Unlike almost any other firm-specific event, stock splits and reverse splits do not involve the cash flows of the firm or any change in the relative strengths of the various interested parties of the firm (Lamoureux & Poon, 1987.

Illustration:

In a reverse split of 5 for 1, 10 million outstanding shares at 50 cents par value (each) would be changed to only 2 million shares outstanding at kshs. 2.50 par value. In both cases, the company is only worth Kshs. 5 million.

1.1.5. Stock Splits and Stock Repurchase (Buy-back)

Firms in the developed markets including the US and the United Kingdom (UK) have increased their repurchasing of outstanding common stock in the market place. The practical motives for stock repurchase include obtaining shares to be used in acquisitions, having shares available for employee stock option plans, and retiring shares. The popularity and importance of stock repurchases is due to the fact that they either enhance shareholder value or help to discourage an unfriendly takeover.

Stock repurchase enhances shareholder value by: reducing the number of shares outstanding and thereby raising earnings per share, sending a positive signal to investors in the market place that management believes the stock is undervalued, and lastly providing a temporary floor for the stock price which may have been declining. The use of repurchases to discourage unfriendly takeovers is predicted on the belief that a corporate raider is less likely to gain control of the firm if there are fewer publicly traded shares available. Bhargava (2010) defines stock repurchase or share buyback as the reacquisition by a company of its own stock.

Example:

A company with 30,000,000 issued shares decides to buy back 10,000,000 shares from its shareholders it means the 10,000,000 will be removed from the market leaving 20,000,000 shares to trade.

1. 2. Problem Statement

Several theories have been advanced to explain the rationales behind stock splits and their effects on ownership mix. Baker & Gallagher (1980) reported that the primary motive for stock splits cited by managers is to reduce the stock price so that small investors can afford round lots. This implies that the number of shareholders is expected to increase following a split. The fact that low priced stocks are preferred by individual investors implies a reduction on institutional ownership after the split. Since stock price affects which type of investors attracted to the stock, the stock split is plausible to affect the ownership structure.

If a firm contains a high concentration of institutional shareholders, the stock split should affect the shareholder base by decreasing the concentration of institutional shareholders. If splits reduce institutional ownership or result in wider ownership in a firm, then they may enable managers to consolidate control over firms. Further, to the extent that institutional shareholders monitor managers' performance more closely than individuals, split may reduce monitoring and increase agency costs.

The effect of splits on the ownership composition of a firm has implications much so on organizational control, monitoring and agency costs (Mukherji, Kim & Walker, 1997). Strickland, Wiles & Zenner (1995) pointed out that if small individual shareholders shall monitor the corporate executives as efficient as institutions, it will be expensive. It might even be more expensive than the possible gain of the monitoring effect. This therefore leads my study to explore the Kenyan market behavior to establish if stock splits can change the ownership mix of the company as explained under optimal trading range or the ownership proportion will remain the same as signaling event. Incase of changes in ownership mix, then it is possible that a firm can reduce or enhance management monitoring by performing stock splits.

The research is to answer the following questions:

Do stock splits increase ownership base of shareholders?

Is there a shift in proportion on ownership mix?

1. 3. Objective of the Study

The objective of the study is to determine the post-split direction of change in ownership; i.e. whether the events have any shift effect on the proportions of institutional or individual holdings on stocks quoted at the NSE.

1.4. Importance of the Study

The study is expected to be relevant to the following groups of people:

1.4.1. Management of the Company

The findings are expected to be crucial for corporate decision making, especially for companies listed or those to be listed at the NSE. Thus, they will be useful to various organizations by giving insight into the shareholding change and policy formulation.

1.4.2. Government

The Government will find the study useful in fostering mobilization of savings for long-term development through putting in place appropriate policy interventions.

1.4.3. Current and Potential Investors

Investors look at various fundamentals when making investment decisions especially, the one to undertake. Many emerging markets especially in developing countries are not efficient; a situation that has pushed investors to rely on individuals who may have inside information on performance of the companies to decide on how to invest. Knowledge on the effect of stock splits will then help investors in making informed decisions. Stock splits act as a signal of managers' confidence on performance of a company. The study findings will be used as a guide to investors on which companies to invest in so as to optimize their returns and with the best takeover measure.

1.4.4. Scholars

Among scholars, the study will provoke those in academia into further research on stock splits and its effect in the developing countries or markets. The scholars and researchers will also be able to appreciate splits at the NSE. Similarly, the study will provide evidence from listed companies of an emerging economy based on agency theory where there is limited empirical evidence on the subject of corporate governance.

CHAPTER TWO

LITERATURE REVIEW

2.1. Stock Splits and Ownership Structure

The question as to why companies split stocks given that they are purely cosmetic accounting changes has attracted a lot of attention in the finance literature but the answers remain unclear. In perfect capital markets, splits would neither create nor destroy value. But in the real world, they have an impact. Two complementary approaches, in form of financial literature, have been used to explain the link between stock splits and ownership mix. The first approach is an insight into the views of the management and the study of how the issuing company's stockholders react to splits in terms of returns, liquidity and volatility in form of hypotheses.

2.1.1. Management Views

Dolley (1933) surveyed managers of 88 companies issuing stock splits over the period 1922 through 1930 and found that the main motive for issuing splits is to increase the marketability of their stock; thus, widen the distribution base among the shareholders.
Almost 50 years later, Baker & Gallagher (1980) surveyed 100 chief finance officers of New York Stock Exchange (NYSE) – listed firms with stock distributions of 25% or more. The firms issuing stock splits reported the highest percentage, namely 63 agreed that the event makes it easier for small stockholders to purchase round lots. The executives also believed that stock splits keep a firm's stock price in an optimal price range and increases the number of shareholders in the firm.

Baker & Powell (1993) surveyed 251 NYSE and American Stock Exchange (AMEX) firms that issued stock splits. The response from 136 firms reveal that the primary motive for issuing stock splits is to move the share price to a better trading range, resulting in improved trading volume. Mehta, Yadav & Jain (2011) investigated Indian managers' opinion about stock splits and their motives for issuing them. The empirical findings of

the survey reveal that management views stock splits as a tool that enhances trading liquidity. It brings share prices down to a preferred trading range, making the shares more attractive to individual investors, enabling small investors to buy shares. These findings are in agreement with Huang, Lino & Pan (2006), where their study on signaling effects of stock splits conclude that there is no improved operating performance in the four years following stock split announcement.

However, Indian managers did not agree with the fact that stock splits provide any positive signals about the future prospects of a firm to make the shares more attractive to institutional investors by lowering the share price. Splits affect the ownership structure of the firm so that institutional holdings decrease and individual holdings increase post split (Abrahamson & Kalstrom, 2009). The optimal trading range hypothesis therefore predicts that the number of institutional shareholders and the proportion of equity held by institutions will decline after a split; thus, implications on the owners possibilities to monitor the agents.

2.1.2. Theoretical Views

On the theoretical front, major hypotheses have been put forward to explain the link existing between splits and ownership of firms. The most common hypotheses that explain why corporate executives split shares include the motive to achieve and optimal price range for liquidity, to signal management confidence in the future stock price, to achieve an optimal tick size and to broaden the ownership base.

Signaling Hypothesis

According to the signaling hypothesis, managers can use stock distributions to signal good news or optimistic expectations to capital market participants. As company insiders, managers usually have better estimates of company prospects than do outsides. Splits are used by the company management to communicate to the investors that the company is expected to earn higher profits in future. The market price of high-growth firm's shares increases very fast that, if the shares are not split periodically, they fall outside the popular trading range. Therefore, these companies resort to splits from time to time.

Grinblatt, Masulis & Titman (1984), observed that undervalued firms may split their stock to attract the attention of analysts and benefit from a reassessment of the firm's future cash flows.

McNichols & Dravid (1990) observed that, by choosing their split factors, firms are signaling private information regarding future performance: thus, information about future earnings, and further, that the split factor itself conveys additional information. Further suggestion is that a split may attract attention to the stock because the higher percentage commissions earned by brokers on lower-priced stocks give them an incentive to publicize splits. Brennan & Hughes (1991) present a model in which managers with favorable private information announced stock splits to attract the attention of analysts and investors interpret splits as signals that managers have favorable information. Their signaling model predicts that a split will increase the number of shareholders as more investors learn about the firm.

Powell & Baker (1994) used a sample of 527 stock splits announced by 481 firms to examine the relationship between stock splits and ownership mix of firms. The sample excluded stock dividends even when the distribution was more than 25%. Their results show that stock splits accompany increases in institutional ownership for firms. Both the number of institutions owning shares and the percentage of shares owned by institutions increased for the stock split samples. Ikenberry, Rankine & Stice (1996) concluded that a smaller firm performs significantly better than a large firm three years post split. They suggest that the announcement of stock splits provides signals about the optimistic feature of the splitting firm to the market.

Mukherji et al. (1997) on a study of all splits of 25% and more by NYSE and AMEX listed firms, from 1984 through 1988 with a sample of 168 firms find that in the year of the split, the total number of shareholders increases by 3.49% in split firms and decreases by 3.17% in control firms. Stock splits increase the numbers of both individual and institutional shareholders, but do not affect the proportion of equity held by institutions. Increases in the number of institutional and individual shareholders following splits are

positively related to split factors. Thus, their results like Barker (1956).support the hypothesis that splits signal positive information about the firm. Pilotte (1997) reported increased earnings before and after stock splits during the sample period (1982 -1989). Furthermore, no reversal of earnings performance was found in the two years subsequent to the stock split announcement indicating that the positive earnings are somewhat permanent rather than temporary. The market reaction to the split announcement and the subsequent earnings was positively related.

Dennis & Strickland (2003) studying NYSE, AMEX and National Association of Securities Dealers Automated Quotation System (NASDAQ) split firms from 1990 through 1993 had 1392 observations. They find that institutional ownership increases for firms with low institutional ownership prior to the split announcement and a decrease for firms with high institutional ownership prior to the split announcement. This was supported by Abrahamson & Kalstrom (2009) on a study of Stockholm Stock Exchange (SSE). Hanaeda & Serita (2004) found that the average proportion of shares held by individual shareholders and foreigners to the total number of outstanding shares have no effect by stock splits. Meanwhile, average proportion of shares held by financial institutions is increased by stock splits, and the average proportion of other business corporations is increased. Thus, stock splits alter the ownership structure of firms by increasing the number of individual shareholders. However, stock splits do not affect the proportion of equity held by individual shareholders.

Huang et al. (2006) considered large companies to be less interested in stock splits than small or medium sized firms. They explain this as due to asymmetrical information and the assumed fact that a large firm is efficiently monitored and thereby has less asymmetric information than a smaller firm. Therefore, the smaller firm has more to gain from a stock split, which is shown in the difference considering abnormal return. Benartzi, Michaely, Thaler & Weld (2006) argued that management should consider their shares for splits after considering that the prevailing level of stock price and earnings are permanent. As a credible form of information diffusion, sending a false signal using stock split would always punish the management and by extension the company with unusual

low prices for the shares. If the manager believed that the future share prices would decrease, they would not split the shares due to the fear of it trading lower.

Abrahamson & Kalstrom (2009) study on stock splitting firms at SSE, using ultimate ownership structure evidenced that the owners increase in all categories after the event has been executed. Their results indicate ownership composition changes after a split. Individual investors decrease relative to institutions and foreign investors, both as holdings in cash flow rights and holdings in voting rights. The evidence that institutional and foreign holdings increase relative to individuals, support Dennis & Strickland (2003). They also find evidence that ownership concentration decreases, which is seen as a result of company management's effort to reduce ownership empowerment of the company and make the monitoring by the owners less effective, and thereby increase their position as company sovereigns.

According to signaling hypothesis, the positive signal conveyed by a split should attract new investors to the firm. Since the signal is positive for all investors, a split should increase the numbers of both institutional and individual shareholders. Of course, for the number of shareholders to increase, some shareholders must sell shares and these shares must be purchased by a larger number of new investors. In spite of the positive signal, some shareholders may sell shares for liquidity while others to rebalance their portfolios, since a split is usually preceded by a run-up in the stock price. Shares sold after the split may be purchased by a greater number of new investors because splits increase the number of round lots. The signaling hypothesis therefore predicts that stock splits will increase the numbers of both institutional and individual shareholders, and there is no reason to expect any effect on the proportion of equity held by institutions. This proportion will change significantly only if individual and institutional shareholders do not respond similarly to positive signals conveyed by stock splits.

Optimal Trading Range Hypothesis

According to the optimal trading range hypothesis, managers use stock splits as tools to realign the share price to a desired price range so that it is more affordable for small

investors to buy round lots of shares. If the pre-split price is at a high level, then a stock split is justified for improving the marketability of the shares. The optimal trading range assumes that individual shareholders are less likely than institutions to buy high-priced stocks in round lots, which have lower transaction costs than odd lots. Moving the stock into this range theoretically makes the market for trading in the stock wider or deeper by attracting more investors.

Barker (1956) reported that the number of shareholders increased 30% for a sample of 90 firms that announced stock splits between 1951 through 1953. Baker & Gallagher (1980) surveyed 100 finance officers on their perceptions about stock splits. The highest percentage, namely 63 agree that the event makes it easier for small stockholders to purchase round lots and result in an increase in the number of shareholders.The optimal trading range posits an equilibrium price where individual and institutional investors find the stock affordable (Lakonishok & Lev, 1987). They found the aim of stock splits to be mainly to restore stock prices to a normal range which is based on market and industry-wide price averages. Stock splits and the resulting price increases occur after periods of unusual growth. However, this could mean that the stock split affects the ownership structure of the firm so that institutional holdings decrease and individual holdings increase post split. The optimal trading range hypothesis therefore predicts that the number of institutional shareholders and the proportion of equity held by institutions will decline after a split; thus, implications on the owners possibilities to monitor the agents.

Lamoureux & Poon (1987) examined 41 stock splits during the period 1975 through 1985 and report 34% increase in the mean number of shareholders for firms announcing stock splits in the year of split. Baker & Powell (1993) talked of "wider markets" phenomenon to explain that the number of shareholders may increase simply because an individual, who holds one round lot and who is likely to sell it to one buyer before a two-for-one (2-1) split, may sell two round lots to two people after the split. If the number of shareholders increases after the split, then trading volume increases. Baker and Powell reveal that the main motivation for the executives to split stock is to improve its liquidity. The increased volatility is believed to be attributable to the increased number of

transactions subsequent to splits. In support of this, Aduda & Chemarum (2010) evidenced increased volumes of shares traded around the stock split and increase in trading activity after the split as compared to pre-split period. Individual investors could, due to financial wealth restrictions, be excluded from buying expensive stocks in round lots. On the other hand, these stocks could be preferred among institutional investors due to fixed per-share transaction costs.

Merton (1987) proposed that an increase in the relative size of the firm's investor base will reduce the firm's cost of capital and increase its market value. Thus, managers of the firm have an incentive to expand the firm's investor base. Based on Merton's proposal, Amihud, Mendelson & Uno (1999) did a study on whether Japanese companies can expand the investor base of their stock by reducing the stocks' minimum trading unit or lot size; this being the minimum number of shares that can be traded on an exchange. Small investors may be unable to trade the minimum unit if this requires a large amount of money being that odd lot trading is forbidden on the Japanese stock exchanges. The increase in the number of shareholders for companies that reduce their minimum trading units is due to the increase in the number of individual shareholders who benefit most from the change. According to the study, a reduction in the minimum trading unit greatly increases a firm's base of individual investors, its stock liquidity, and is associated with a significant increase in the stock prices; small individual investors have neither the incentive nor the ability to effectively monitor management; and lastly more concentrated ownership improves corporate governance.

Dhar, Goetzmann, Shepherd & Zhu (2005) examined the trading of individual and professional investors around stock splits and find that the subdivisions are associated with significant change in investor clientele. They find a higher fraction of post-split trades are made by less sophisticated investors, as individual investors increase and professional investors reduce their aggregate buying activity. Their results indicate that splits attract new investors, majority of whom come between split announcement and split ex-date. Their most striking results are that splits have much less attractive value for professional investors in that the fraction of trades by high-income investors decreased

from 16% to 13%. Meanwhile, the fraction of trades by professionals decreased significantly from 18% to 15%. These findings are interpreted as evidence of a clientele shift from institutional to individual investors.

The Optimal Tick Size Hypothesis

Angel (1997) introduced the optimal tick size hypothesis. According to this hypothesis, in equity markets there is an institutionally mandated minimum absolute tick size, which is optimal relative to the share price, e.g. stock markets have a tick size of 0.01, which is the equivalent of $0.01 for US stock markets. Financial market move in different size price increments and the minimum price movement is known as the tick. Thus, a market's tick size is the minimum amount that the price of the market can change. It is also known as the minimum price change. A wide tick size reduces transaction costs and offers more incentives for limit orders, enhancing liquidity. On the other hand, a wide tick size increases the cost to investors inherent in a wider percentage spread. Leung, Rai, & Wang (2006) argued that a stock split is one mechanism used by companies to move share prices into the optimal range of the tick size.

Tax-Option Hypothesis

According to Lamoureux & Poon (1987), the increase in volume increases the noise level of the security's return process, which increases the tax-option value of a firm's stock. Their empirical results support the tax timing hypothesis which predicted an increase in the number of shareholders after a split. Investors in low tax brackets (institutions) will not be willing to accept a lower expected return in exchange for the increased tax-option value. Yet, the higher tax-option value of the stocks will attract individual investors in higher tax brackets. It therefore predicts a clientele shift from institutional shareholders, who are either tax-exempted or in low tax brackets, to individual shareholders, who are in higher tax brackets. According to this hypothesis, a stock split should increase the number of individual shareholders and reduce the number of institutional shareholders as well as the proportion of equity held by institutions.

Tax-option hypothesis argues that splits enhance the tax-option value of stocks by increasing the volatility of returns, thereby providing investors with greater opportunities to benefit from tax-timing options. In support of their hypothesis, Lamoureux & Poon (1987) found that splits result in an increase in the volatility of returns. In addition, splits are followed by an increase in the number of shareholders, which is positively related to excess returns around the ex-day.

Take-over Defense Hypothesis

The managerial entrenchment hypothesis predicts that by lowering the stock price, a split will increase the number of individual shareholders, decreasing the number of institutional shareholders, and reduce the proportion of equity held by institutions. These changes in the ownership structure are expected to make takeovers more difficult by increasing the proportion of individual shareholders and broadening the shareholder base. Baker & Gallagher (1980) indicated that the increasing share of institutional investors in total trading volume may motivate managers to split stocks in order to broaden the ownership base and reduce the percentage of shares held by a few institutions. By increasing the ownership base of the firm, management makes it more difficult for any one group of shareholders to initiate action against them, that managers concerned with a takeover threat may carry out stock splits in order to achieve a broad and heterogeneous shareholder base (Lakonishok & Lev, 1987). Lamoureux & Poon (1987), argue that the executives use the splits to protect their interests from takeover threats.

Franks & Mayer (1990) noted that takeover defense measures help to make acquisition of a company more difficult, if not impossible, and thereby serve to insulate managers from the free market for corporate control. These measures vary from country to country depending on institutional features and corporate governance systems Kabir, Cantrijn & Jeunink (1997) found firms with a relatively lower ownership concentration are the ones with a large number of defense measures. Their analysis shows that the likelihood for a firm to adopt takeover defenses is inversely and significantly related to ownership concentration. Their overall evidence is consistent with the hypothesis that company management is more likely to adopt defensive measures when a firm is characterized by

diffused shareholdings but does not strongly support the hypothesis that institutional shareholders provide better monitoring than other block-holders. The existing variety of ways to classify take-over defenses can be either structural or technical. The structural arises from prevailing structures of stock market, and equity ownership

2.2. Kenyan Studies

The history of Kenyan stock splits dates back to 2004 when the first was declared by Kenya Oil Company (Kenol) Limited. The split at a rate of ten-for-one (10:1) was intended to improve the liquidity of the stock, greatly hampered by a huge increase in the market price, The company traded only 331,196 shares at the exchange during the year 2003 representing 0.33% of its 100,796,120 shares on issue. However, there was an upward trend on the price that rose from Kshs.108 at the beginning of the year to Kshs. 380 at year end representing a massive 251.85% increase in value (NSE 2010).

While researching on the effects of stock splits and large stock dividends in Kenya on two identified splits, Simbovo (2006) found that the concept was relatively new in the NSE with the first split in 2004. He established that stock splits and stock dividends affect liquidity in the Kenyan market. The results are consistent with the trading range hypothesis, where managers split their stock when they feel the shares are not affordable. Musau (2007), as cited by Mwangi (2009) noted that there was a bull run that kicked off in the Kenyan market in 2006, which made the market gain more than 50%. As earnings of the companies increased, so did the demand for shares by the public. The price appreciation forced many companies to split shares owing to the nature of majority of the Kenyan investors. He also noted that before the companies split their stock, two typical market conditions were witnessed: a high demand for companies' shares which propelled the prices upwards and more retail investors took up positions to qualify for the split multiples.

Aduda & Chemarum (2010) and Chemarum (2009) examined nine companies which had undergone stock splits at the Nairobi Stock Exchange between 2004 & 2008. The aim was to establish how NSE reacts to the stock split announcements. They observed

diffused shareholdings but does not strongly support the hypothesis that institutional shareholders provide better monitoring than other block-holders. The existing variety of ways to classify take-over defenses can be either structural or technical. The structural arises from prevailing structures of stock market, and equity ownership

2.2. Kenyan Studies

The history of Kenyan stock splits dates back to 2004 when the first was declared by Kenya Oil Company (Kenol) Limited. The split at a rate of ten-for-one (10:1) was intended to improve the liquidity of the stock, greatly hampered by a huge increase in the market price. The company traded only 331,196 shares at the exchange during the year 2003 representing 0.33% of its 100,796,120 shares on issue. However, there was an upward trend on the price that rose from Kshs.108 at the beginning of the year to Kshs. 380 at year end representing a massive 251.85% increase in value (NSE 2010).

While researching on the effects of stock splits and large stock dividends in Kenya on two identified splits, Simbovo (2006) found that the concept was relatively new in the NSE with the first split in 2004. He established that stock splits and stock dividends affect liquidity in the Kenyan market. The results are consistent with the trading range hypothesis, where managers split their stock when they feel the shares are not affordable. Musau (2007), as cited by Mwangi (2009) noted that there was a bull run that kicked off in the Kenyan market in 2006, which made the market gain more than 50%. As earnings of the companies increased, so did the demand for shares by the public. The price appreciation forced many companies to split shares owing to the nature of majority of the Kenyan investors. He also noted that before the companies split their stock, two typical market conditions were witnessed: a high demand for companies' shares which propelled the prices upwards and more retail investors took up positions to qualify for the split multiples.

Aduda & Chemarum (2010) and Chemarum (2009) examined nine companies which had undergone stock splits at the Nairobi Stock Exchange between 2004 & 2008. The aim was to establish how NSE reacts to the stock split announcements. They observed

increased volume of shares traded. Thus, Kenyan stock market reacts positively to stock splits as shown by increased volumes traded and increased trading activity after the stock splits. Muthui (2009) investigated the effect of stock splits on stock prices with a view to test the existence or absence of abnormal returns after stock split announcements at the NSE. His objective was to determine whether a split announcement has significant effect on stock prices. His study assumed that capital markets are sufficiently efficient to evaluate the impact of information arising from simultaneous events and factors that occur alongside stock splits. His findings were that significant positive abnormal returns after the announcement persisted for a short period.

Mwangi (2009) analyzed the effects of the announcement of bonus issue/ stock splits in the long run for the selected firms quoted at the NSE. The study revealed that the announcement of the stock split positively affected the stock prices and market capitalization by 15% on the announcement month, the upward trend on the share price seems to end after the ex-split month announcement and decreases by -13% in the first month after split and lastly, an announcement of stock split causes a positive change on the stock prices and the market capitalization by 20%. Mwangi suggested further research to isolate the dividends announced concurrently with stock splits due to the uncertainty about the dividend signal inherent in the stock split announcement. Munyi (2010) established that the stock returns experienced a high abnormality during announcement and days surrounding the announcement. Nkonge (2010) examined the effects of stock splits on security returns of companies listed at the NSE and established evidence of significant abnormal returns related to the announcement of a stock split and the ex-split date.

2.3. Implications of Ownership Structure

Ownership structure is a fundamental investment concept that both investors and borrowers are concerned about who owns the company and how it is managed. Investors are, as a result, concerned because management and control of the firm affect their wealth in the firm value. According to Gompers & Metrick (2001), a firm might choose ownership composition by changing their price level. If the firm has a relative high stock

price the number of institutional investors will be relatively high and vice versa. This assumption was also supported by Fernardo, Krishnamurthy & Splindt (2004) who investigated the price level choice in initial public offers (IPO) and found that stocks with relatively high introduction price have a greater share of institutional investors than stocks with a relatively low price. This implies that by changing the price, the firm might want to decreases the concentration of institutional investors in favor of individual investors.

2.3.1. Institutional Ownership

Informational Advantage

Institutional investors have an informational advantage that enables them to identify and invest in better performing firms. Mason & Shelor (1998) concluded that institutional investors, having the benefit of analyst information, might identify firms most likely to enact stock splits. Their result of the positive association between institutional investors and information advantage suggests that higher percentage of institutional ownership is associated with a great stock split propensity. Institutional investors may also encourage firms to approve splits to earn return increases. Split behavior increases concurrently with institutional ownership increases. Firms with high levels of pre-split institutional ownership consistently exhibit the highest split behavior. The positive relationship implies that institutional investors either prefer firms with stock splits characteristics, encourage stock split behavior, or both.

O'Brien & Bhushan (1990) found that changes in the number of institutional shareholders are positively related to the number of analysts following the stock. If institutional investors have more efficient mechanisms for collecting information than individuals, they may respond faster to signals contained in stock splits. Once the signal is fully revealed to all investors, the reaction of individuals should be similar to that of institutions. If both groups of shareholders respond equally positively to stock splits, then there should be no significant change in the proportion of equity held by institutions.

The information hypothesis as suggested by Chemmanur, Hu & Huang (2009) posits that institutional investors have an informational advantage in evaluating the prospects of a firm. Institutions may be more willing to incur the fixed cost in estimating the value and the future cash flows of a firm, since they can amortize this cost over their larger holdings. Further, since institutions typically invest in a large number of different stocks, they are able to exploit the economies of scope in evaluating firm quality. Further, since the cost of acquiring information about managerial effectiveness likely contains a fixed component, institutional investors can exploit the economies of scale in these costs because they often own a large number of shares.

The institutional investors coordinate their activism and engage in quiet governance characterized by relationship building and information exchange with management. High institutional ownership is not without costs associated with it. Szewczyk & Tsetsekos (1992) discuss other costs of highly institutional ownership. These costs include increased volatility of share prices, a short term results orientation for a firm management, and lessened ability to raise capital through new equity issues.

Management of Agency Problems

Institutional ownership for a firm has an implication for its agency costs. Shleifer & Vishny (1986) argued that institutions are seen as professional decision-makers who know how to assess the performance of the firm and to monitor the management. As a result, the degree of institutional ownership may have an effect on agency costs, and consequently on stock splits. Their study on the monitoring benefits from institutional ownership analyzed the impact of institutional ownership on stock price and operating performance following seasoned equity offerings. The evidence from the study are announcement returns are positively and significantly related to total and active institutional ownership levels and concentrations, post-issue stock returns are positively and significantly related to the contemporaneous post-issue changes in total and active institutional ownership and the concentration of their shareholdings, operating performance improvements are also related to institutional monitoring in the one, two, or three years following the equity issue.

Owner controlled firms tend to grow faster than management controlled firms, whether growth was measured by sale or net worth (Sorensen, 1974). Kabir et al. (1997) supported the hypothesis that more concentrated ownership of shares provides more effective monitoring of managers. It is usually believed that institutional investors find it in their best interest to more effectively monitor company managers. A reduction in the minimum trading unit greatly increases a firm's base of individual investors, its stock liquidity, and is associated with a significant increase in the stock prices; small individual investors have neither the incentive nor the ability to effectively monitor management; and lastly more concentrated ownership improves corporate governance (Amihud et al., 1999).

2.3.2. Dispersed / Individual Ownership

Lakonishok & Lev (1987) noted that widening the distribution of outside stock ownership through stock splits may reduce a firm's vulnerability to unfriendly takeovers. Stock splits may, therefore, be undertaken with the intent to insulate managers from the market for corporate control. This may particularly be the case for firms with low managerial ownership as such firms are more vulnerable to take-over attempts than closely held firms.

In their empirical study on the relationship of takeover defenses with firms' ownership structure and shareholders' wealth, Kabir et al. (1997) noted that firms with a relatively lower ownership concentration are the ones with a larger number of defense measures. The analysis also shows that the likelihood of a firm adopting takeover defenses is inversely and significantly related to ownership concentration. Barker (1956) gives some more reasons for having a broader ownership base. First, a broad ownership base may help a firm raise new equity capital for expansion. Second, it may lessen the chance of price instability. Finally, a broader ownership base may increase the potential for customer ownership, especially for firms manufacturing consumer goods.

2.4. Conclusion on the Review

Based on the above literature review, my study has worked on two hypotheses which are signaling and optimum trading range. Signaling is assumed to distribute shares in equal proportion while Optimum price range favors individual shareholders. With the hypothesized outcome, the study has determined the strength or weakness on monitoring. The Kenyan studies on splits, some of them highlighted in the chapter, have mainly considered other aspects of stock splits like market reactions such as turnover/ liquidity, price/return changes but none on ownership effect. This has contributed much of foreign market orientation to my literature review and was used as the knowledge gap.

The government of Kenya abolished the capital gain tax on equity investors in 1984 to allow persons with savings to invest in the capital markets. The only tax burden on equity holders is the withholding tax on dividends payable to eligible holders. It therefore means this hypothesis is not testable in the Kenyan market.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research Design

My study was an event study designed to cover splits declared by Kenyan quoted Companies between 2005 through 2009. It was meant to determine the relationship between stock splits and ownership composition by analyzing the behavior of the variables in two-time horizon made up of 12 months. The pre-split horizon is 6 months to the announcement date / month and the post-split period is 8 months after split date / month. The study only uses the 12 months made up of 6 months to the event month and 6 months following the ***effective date*** (open of trading in split stocks).

The period between the event month and the effective date was not considered important because the additional shares are still not in the market. Many Kenyan quoted companies would still trade above the optimal level because it takes about 2 or so months to set the effective dates. It has categorized investors into three as follows: Local Retail (East African) Investors (LRI), Local (E. A.) Institutional Investors (LII) and Foreign Investors (FI). These categories were reduced to three against the proposed four because the data availed for my analysis lumped-up foreign investments into one category as Foreign Investors. This combined both institutional and individual foreigners.

3.2. Population

A total of 12 splits were declared by 10 companies since 2004; of these, Kenol and Barclays Bank have each done it twice. My study has not included the two firms for the reason that Kenol splits and one for Barclays did not fall within the study period, while the other for Barclays' split was accompanied with concurrent bonus issue. The other split not included on the study is E.A. Breweries limited whose split event occurred before 2005. My study therefore, uses a population of seven firms which happen to

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qualify. They consist of all the companies listed on the NSE which have declared splits within the period between 2005 through 2009 with the exclusion of the named three.

3.3. Data Collection

The stock splits announcements details for the test period were obtained from the NSE corporate events information diary-*The Nairobi Stock Exchange Facts Book* which provided all the corporate announcement details, including the announcement dates, split ratios, payment or crediting dates and the effective dates. Monthly data on the number of shareholders and their proportion of equity held by each of the four categories were obtained from shareholders up-date register from the registrars and were supplemented with information contained in the companies' annual reports and financial statements whose copies were available in the CMA library. The study has fully used secondary data for presentation and analysis.

The registration of ownership in Kenya is normally delegated to appointed registrars: one of which is Custody and Registrars Services Limited whose core duties are to transfer the ownership on stocks after the delivery and settlement cycle is complete. Copies of annual report and financial statements were obtained from the CMA library. The Capital Markets (Foreign Investors) Regulations issued in 2002 states that every issuer or quoted company must reserve at least 25% of its ordinary shares for investment to local investors. This regulation also requires all public quoted companies to update and submit their shareholding structure to both CMA and NSE by end of every month (12 times a year).

3.4. Hypothesis

The research focused on testing the following hypothesis.

H_O: Stock splits cause no significant change in ownership structure (proportions) of companies quoted at the NSE.

H_1: Stock splits cause significant change in ownership structure (proportions) of companies quoted at the NSE.

3.5. Data Analysis

To examine the effect or relationship between stock splits and ownership composition, the study analyzed, for each of the three categories, the behavior of three variables before and after the stock splits announcement. The variables used in each category include split ratios as the independent, the changes in shareholder numbers and proportions are used as the dependent variables. Besides working the various levels of their central tendencies of Mean and Median the study also looked at the levels of dispersion using Variances and standard Deviations as population parameters. The study extended further to measuring their degrees of relationship using the correlation coefficient method. For instance, category one analyzed LR Investors number and proportion of change post split. The numbers and proportions in ownership before and after split are compared under the analysis.

Stock Splits Ratios

The Kenyan market has been declaring extremely high split ratios which range from 100% to 900%. Each of the seven companies under study declared a split ratio of at least 100% (2:1). These are used in the study as independent variables to assess the level of increase in the number of shareholders and how they affect the ownership proportions for each category.

Data presentation

The study has used tables, pie-charts and line graphs to show the levels of shareholding shifts for the categories.

CHAPTER FOUR

DATA ANALYSIS AND RESEARCH FINDINGS

4.1. Introduction

This chapter contains the detailed data analysis and findings of the study. The data is Summarized, presented and analyzed in the form of Tables, Pie-Charts, Line Graphs and Percentages.

4.2.1. Number of Shareholders in Split Companies

Table 1 has been used to explain this part. It is a summary of shareholder numbers six months before and after the events. The shareholder numbers for the two event periods are compared, changes obtained and recorded in figures and corresponding percentages.

Table 1: Number of Shareholders

Company	6 Months Before Splits. **(Mean)**	6 Months After Effective Date **(Mean)**	Changes in Shareholders Number / Proportion.
CMC	3033	8567	5534 - (+182.46%)
E. A.Cables	1079	12121	11042 - (+1023.36%)
Equity Bank	8537	22893	14356 – (+ 168.16%)
ICDC	2733	5810	3077 – (+112.59%)
KCB	114241	133305	19064 – (+16.69%)
NMG	9359	9426	67 – (+0.72%)
Sasini	1753	5106	3353 – (+191.27%)
Total	**140735**	**197228**	**56493 – (+1695.25%)**
Mean	**20105**	**28175**	**8070 – (+242.18%)**
Median	**3033**	**9426**	**5534 – (+168.16%)**
Variance	**10402905784**	**1872331141**	**106831.67**
Std. Deviation	**38550.34**	**43270**	**326.85**

Table 1 explains the changes in the number of shareholders six months before and six months after the split events. The number of shareholders increased highly from 20105 before to 28175 after the effective period, representing an absolute increase of 8070 more shareholders. This positive mean number of shareholders is significant being that it translates to 40.36%. For the assessment of the two horizon median, the study discloses a high range of 6393 representing 10.78% (3033- 9426). The dispersions as indicated by the variances and standard deviations are very high The study confirms that splits at the NSE significantly increases the number of shareholders, thus shown with increased or positive mean.

Barker (1956) reported that the number of shareholders increased by 30% for firms that announced stock splits between December 1951 and December 1953. Lamoureux and Poon (1987) reported that the mean number of shareholders for split firms increased by 34.65%, stating that firms that split their stock subsequently enjoy a marked increase in the number of shareholders. Mukherji et al (1997) confirmed an increase of 3.49% in the total number of shareholders Abrahamson & Kalstrom (2009) study had an increase of 28%-33% in each category in the event period.

4.2.2 Effect of Split Ratios on the Number of Shareholders.

Table 2: Effect of Split Ratios on the Number of Shareholders

Company	Split Ratios % **(X)**	Change in Shareholders Number % **(Y)**
CMC	900	182.46
E. A. Cables	900	1023.36
Equity	900	168.16
ICDC	900	112.59
KCB	900	16.69
NMG	100	0.72
Sasini	400	191.27
Total	**5000**	**1695.25**

Figure 1:

Explains how Split Ratios relate to changes in Shareholder Numbers

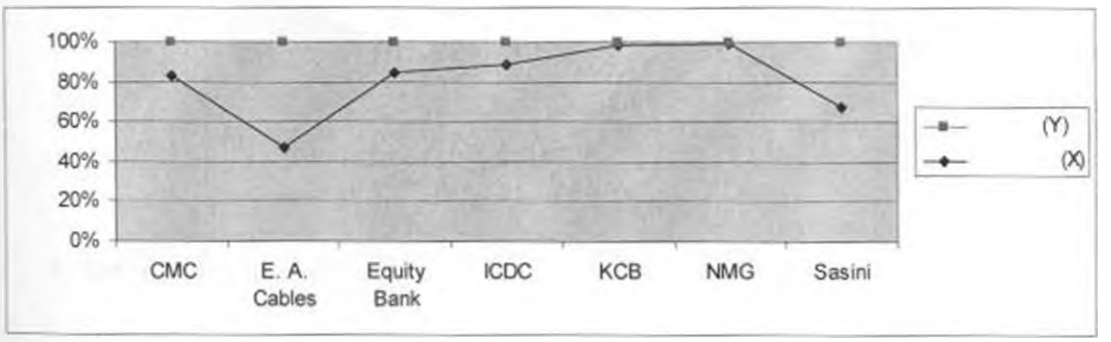


Table 2: analyzes split ratios and their effects on changes in shareholder numbers using ratios ranging from the highest 10:1 (900%) to the lowest 2:1 (100%). The ratios are used as independent variables while changes in ownership are dependents. The Karl Pearson's model is applied to assess the relationship and its magnitude between the two variables. The study confirms a low positive correlation of 0.31 between splits and changes in ownership. This is a low value and shows a weak linear relationship with almost all the changes in proportions. Meaning that splits and changes in shareholder numbers are directly correlated but with low magnitude. The signaling model of Brennan & Hughes

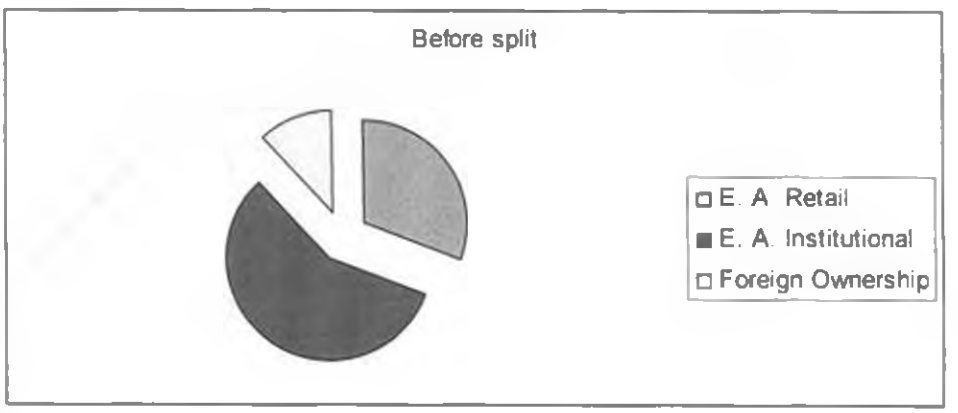
(1991) suggests that a stock split conveys managers' favorable private information about the firm and attracts new investors to it. My evidence is therefore consistent with the empirical evidence that stock splits result in positive announcement returns and increases in the number of shareholders.

4.2.3. Categorized Ownership Proportions.

The last illustration on this section 4.2 presents categorized proportions of shareholders six months before and six months after using Figures 2 & 3 inform of pie-charts

Figure 2:

Categorized Ownership Proportions Before Splits.



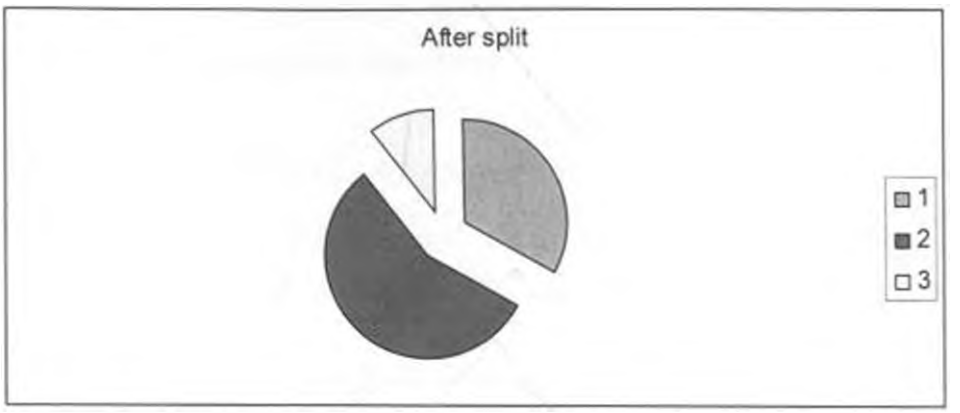
E. A. Retail Ownership.....**30.91%**

E. A. Institutional Ownership.....**57.02%**

Foreign Ownership.....**12.07%**

Figure 3:

Categorized Ownership Proportions After Splits



E. A. Retail Ownership.....**33.08%**

E. A. Institutional Ownership.....**56.30%**

Foreign Ownership.....**10.62%**

4.3.1 Local Retail Ownership Proportions.

Table 3 analyzes the changes in ownership proportions on Local Retail investors. It shows ownership proportions six months before and six months after the effective dates and the resultant changes in proportions..

Table 3: Local Retail (E. A.) Ownership Proportions

Company	6 Months Before Splits % **(Mean)**	6 Months After Effective Date % **(Mean)**.	Change in Shareholders Proportions % **(X)**
CMC	45.25	49.04	3.79
E.A. Cables	15.53	20.90	5.37
Equity	38.21	36.86	(1.35)
ICDC	32.71	27.82	(4.89)
KCB	31.76	34.77	3.01
NMG	33.57	32.68	(0.89)
Sasini	19.33	29.47	10.14
Total	**216.36**	**231.54**	**15.18**
Mean	**30.91**	**33.08**	**2.17**
Median	**32.71**	**32.68**	**3.01**
Variance	**91.52**	**65.87**	**21.24**
Std Deviation	**9.57**	**8.12**	**4.61**

Table 3 examines E. A. Retail ownership proportions before and after the events. As indicated by the mean holdings, the Retail ownership proportion was 30.19 % prior to the splits as compared to post split proportion of 33.08%, contributing to a mean positive margin of 2.17%. The median slipped slightly from 32.71% before to 32.68% after. The positive mean margin of 2.17%, though insignificant, but supports my theoretical expectation of optimality. According to the optimal trading range hypothesis, managers use stock splits to broaden the ownership base of the firm, thus to increase the number of shareholders and decrease the institutional ownership of the firm. The ownership

becomes broader because the lower post-split prices make it cheaper for individual investors to purchase shares in round lots. In the Kenyan market, the NSE minimum round lot is 100 shares and whatever is lower is an odd lot which also trades but at lower prices compared to the board / round lots. Unlike in Japan where odd lot shares have no room for trading (Amihud et al, 1999).

Mukherji et al (1997) found a differential increase of 6.54% in number of individual shareholders. My evidence contradicts evidence by Powell & Baker (1993/1994) that the number of shareholders remains the same round the split but the number and percentage of shares owned by institutions increase. This finding that Retail ownership increased in the Kenyan market is consistent with the opinion that lower priced stocks attract individual investors. Taking this into consideration, my report confirms and supports Gompers & Metrick (2001) and Fernardo et al (2004) stating that individuals prefer cheap stocks since their ownership increase in absolute terms.

4.3.2. Effect of Split Ratios on Local Retail Ownership Proportions.

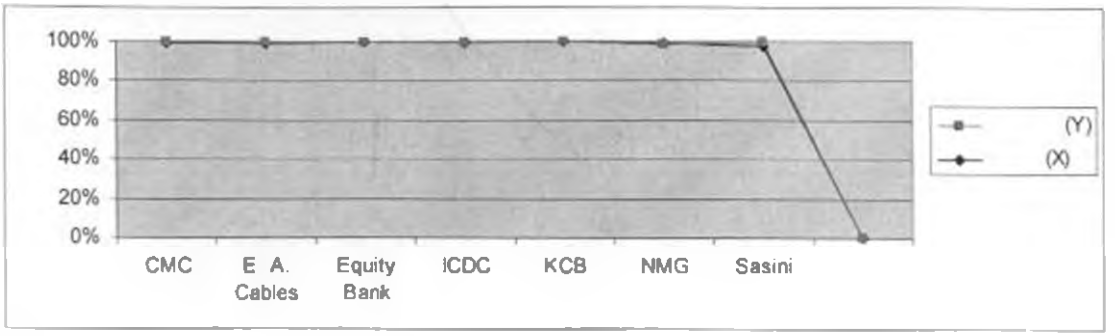
Table 4 relates the split ratios to changes in ownership proportions and is supported with an illustration on a line graph 4

Table 4: Effect of Split Ratios on Local Retail (E.A.) Ownership.

Company	Split Ratios % **(X)**	Changes in Shareholders Proportions % **(Y)**
CMC	900	3.79
E. A. Cables	900	5.37
Equity	900	(1.35)
ICDC	900	(4.89)
KCB	900	3.01
NMG	100	(0.89)
Sasini	400	10.14
Total	**5000**	**15.18**

Figure 4:

Presents how split ratios relate to changes in Local Retail Ownership



The assessment on relationship between split ratios and their affect on the ownership proportions on Retail investors is done using table 4 where a correlation coefficient of negative 0.16 is confirmed. This low negative value indicates weak linear relationship. That the two variables move inversely but to a very insignificant level and strength. Meaning, splits contribute to decrease in Retail ownership proportion. The negative relationship identified between the two variables is inconsistent with the optimal trading range, managerial entrenchment and tax-option.

4.4.1. Local (E.A.) Institutional Ownership Proportions.

Table 5 is primarily used to compare notes on the ownership proportions on local institutional investors and what changes are resulted after the effective dates.

Table 5: Local (E. A.) Institutional Ownership Proportions

Company	6 Months Before Splits % **(Mean)**	6 Months After Effective Dates % **(Mean)**	Changes in Shareholders Proportions % **(Y)**
CMC	51.45	48.97	(2.48)
E. A. Cables	84.21	78.55	(5.66)
Equity	27.32	31.66	4.34
ICDC	67.11	72.00	4.89
KCB	67.52	63.94	(3.58)
NMG	21.09	28.73	7.64
Sasini	80.47	70.28	(10.19)
Total	**399.17**	**394.13**	**(5.04)**
Mean	**57.02**	**56.30**	**(0.72)**
Median	**67.11**	**63.94**	**(2.48)**
Variance	**486.48**	**345.20**	**36.05**
Std Deviation	**22.06**	**18.58**	**6.00**

Table 5 explains the changes in proportions on East African Institutional investors between the two event periods. The mean changes in proportions stood at 57.02% before and 56.30% post split giving a mean margin of negative 0.72%, a decline in the E. A, institutional ownership proportions. A clear confirmation that institutional shareholders react negatively to splits as predicted by the optimal trading range. The median as another indicator is down at 63.94% post split compared to 67.11% before the events

Mukherji et al. (1997) evidenced no significant differential change in the proportion of equity held by institutions. My report is inconsistent with Dennis & Strickland (2003)

who reported that institutional ownership increases following stock splits in firms with low proportion of institutional ownership before the split. Abrahamson & Kalstrom (2009) established that Swedish institutional and foreign ownerships increase when individual ownership decreases. This is not necessarily inconsistent with the idea that lower priced stock attracts individual investors due to the increase in number of individual shareholders.

4.4.2. Effect of Split Ratios on E.A. Institutional Ownership Proportions

Table 6 looks at the relationship between declared split ratios and changes in ownership proportions of institutional investors with an illustration on line graph.5.

Table 6: Effect of Split Ratios on E. A. Institutional Ownership

Company	Split Ratio % **(X)**	Change in Shareholders Proportion % **(Y)**
CMC	900	(2.48)
E. A. Cables	900	(5.66)
Equity Bank	900	4.34
ICDC	900	4.89
KCB	900	(3.58)
NMG	100	7.64
Sasini	400	(10.19)
Total	**5000**	**(5.04)**

who reported that institutional ownership increases following stock splits in firms with low proportion of institutional ownership before the split. Abrahamson & Kalstrom (2009) established that Swedish institutional and foreign ownerships increase when individual ownership decreases. This is not necessarily inconsistent with the idea that lower priced stock attracts individual investors due to the increase in number of individual shareholders.

4.4.2. Effect of Split Ratios on E.A. Institutional Ownership Proportions

Table 6 looks at the relationship between declared split ratios and changes in ownership proportions of institutional investors with an illustration on line graph.5.

Table 6: Effect of Split Ratios on E. A. Institutional Ownership

Company	Split Ratio % **(X)**	Change in Shareholders Proportion % **(Y)**
CMC	900	(2.48)
E. A. Cables	900	(5.66)
Equity Bank	900	4.34
ICDC	900	4.89
KCB	900	(3.58)
NMG	100	7.64
Sasini	400	(10.19)
Total	**5000**	**(5.04)**

Graph 5: Graphical presentation of the Relationship between Split Ratios and Changes in Institutional Ownership Proportion

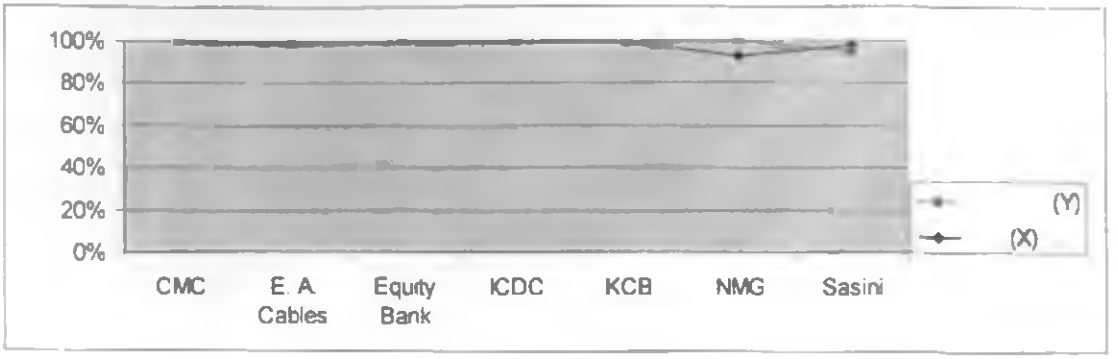


Table 6 looked at the relationship between split ratios and how they affect the proportions on E. A. Institutional ownership. Using the same Karl Pearson's model, the correlation coefficient indicates an insignificant negative correlation of 0.15. The split ratios and levels of changes in proportions are inversely related. Even though the correlation coefficient is not significant, the negative relationship between the split ratios and institutional ownership proportion does not supports the signaling hypothesis, but is consistent with the optimal trading range, managerial entrenchment and tax – option.

4.5.1. Foreign Ownership Proportions.

Finally, table 7 compares the same notes on foreign ownership proportions. The structure on foreign ownership, as was availed for my study, lumps both Retail and Institutions as Foreign investors.

Table 7: Foreign Ownership Proportions

Company	6 Months Before Splits % **(Mean)**	6 Months After Effective Dates % **(Mean)**	Change in Shareholders Proportions % **(Y)**
CMC	3.29	1.99	(1.30)
E. A. Cables	0.27	0.56	0.29
Equity	34.48	31.48	(3.00)
ICDC	0.18	0.17	(0.01)
KCB	0.72	1.29	0.57
NMG	45.34	38.62	(6.72)
Sasini	0.20	0.26	0.06
Total	**84.48**	**74.37**	**(10.11)**
Mean	**12.07**	**10.62**	**(1.44)**
Median	**0.72**	**1.29**	**(0.01)**
Variance	**319.86**	**242.63**	**5.95**
Std Deviation	**17.88**	**15.58**	**2.44**

The mean proportion for foreign investment prior to the event was 12.07% as compared to the post split period with a reduced mean of 10.62%. The mean change in proportions is negative 1.44%. The median behavior indicates a higher median of 1.29% post-split as compared to 0.72% pre-split. In the SSE, the evidence disclosed that ownership composition changes after splits with individual investors decrease relative to institutions and foreigners.

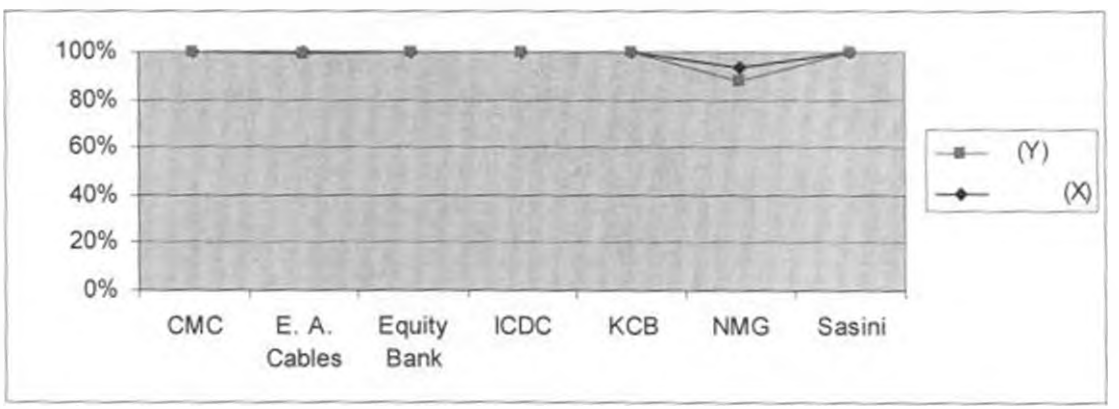
4.5.2. Effect of Split Ratios on Foreign Ownership Proportions

Table 8 in the same section relates the split ratios and the proportional changes with a graphical illustration - graph 6.

Table 8: Effect of Split Ratios on Foreign Ownership

Company	Split Ratios % **(X)**	Change in Shareholders Proportions % **(Y)**
CMC	900	(1.30)
E. A. Cables	900	0.29
Equity	900	(3.00)
ICDC	900	(0.01)
KCB	900	0.57
NMG	100	(6.72)
Sasini	400	0.06
Total	**5000**	**(10.11)**

Graph 6: Graphical presentation of the relationship between split ratios and changes in foreign ownership proportion



My analysis proves that the ownership proportion for foreigners decreased with splits but with indication of positive correlation. Split ratios are directly related to the changes in foreign investment. This is indicated by a positive correlation of 0.67. This was a high value showing a strong linear relationship with almost all the changes. A figure of 0.67

confirmed on Kenyan splits increased the proportion of foreign ownership. Assuming a higher proportion of institutional investment, the behavior supports signaling and is inconsistent with optimal trading range and managerial entrenchment hypotheses.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

One of my theoretical expectations was that split events would enlarge the ownership base because more investors would be willing and able to purchase shares at their optimal trading price after the splits. My study has achieved and confirmed a mean positive change of 40.36%. The same note has straightly answered positively my first research question stating whether stock splits increase the ownership base of a company.
On a shift effect in proportions, my study has proven that the proportional shifts are so low that they almost remain the same. Based on this, splits in Kenya are event tools for, one, optimize the stock prices and secondly, to widen the ownership base.

5.2 Conclusion

The findings of this study have several implications. First, managers in Kenya seeking to broaden their ownership base should use stock splits as this study confirms that splits achieve both goals of attracting more individual investors into the ownership structure of their firms and increase the number of shareholders. Second, the decrease in institutional ownership proportion after splits may reduce the informational advantage that enables the managers to identify and invest in better performing investments. And lastly, Retail investors with a reduction in institutional proportion have no capability to monitor the corporate executives as efficiently as institutions. It might be more expensive than expected gain from their monitoring effect.

My study did not test the hypothesis of whether stock splits cause a significant or no significant change in ownership proportions of companies quoted at the NSE because the mean positive change on each of the three categories was openly evidenced insignificant with the highest change of 2.17% noted on retail ownership proportions while the least negative 1.44% was witnessed on foreign ownership proportions. The mean positive margin of 40.36%, highly a significant increase was evidenced on the ownership base.

5.3 Recommendation

Kenyan market should use splits as takeover defense because they mainly broaden the ownership base. The expanded ownership is a take – over defense mechanism. As take-over defense measure it helps to make acquisition of a company more difficult, if not impossible, and thereby serve to insulate managers from the free market for corporate governance. It again enables managers to consolidate control of the firm.

Many splits in Kenya are not seen to comply with the rationale of optimality. Some companies announce splits when their prices are extremely high possibly because of price manipulation. The less informed Kenyan investors normally rush to buy these shares either immediately after the split announcement or immediately after the effective date. Normally, whatever comes to the market as an optimal price cannot be realized because the prices start to decline immediately. A study should be done to establish why the optimal prices immediately after the effective dates have been a night mere for the investors. Why investors who get into split stocks immediately after the effective date would remain hanging with their stocks selling much lower. This study should also look at the composition of the first top-ten shareholders before and after split events to establish whether they continue as shareholders on the same proportion or they sell their holdings between the announcement and effective dates

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APPENDIX 1

LETTER OF INTRODUCTION

University of Nairobi

School of Business

Department of Finance and Accounting

Master of Business Administration Program

September 30, 2011

Dear Sir/Madam

REF: RESEARCH DATA FOR MBA PROJECT

I am a student at the University of Nairobi pursuing a master degree in Business Administration. Am currently carrying out research on, "The effect of stock splits on the ownership structure of companies listed at the Nairobi Stock Exchange" and am required to submit as part of my course-work assessment a research project report on the same. I would therefore appreciate if you assist me with the relevant data.

The information in form of data you provide will be treated with confidentiality and will be used solely for academic purposes.

Thank you.

Ongere, Joel Juma

D61/P/8469/99

Researcher/MBA Student

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Ongere, Joel Juma

D61/P/8469/99

Researcher/MBA Student

APPENDIX 2

Number of Shareholders Before Split Announcement

Company	M- 6	M- 5	M- 4	M- 3	M- 2	M- 1	Mean
CMC	2988	2973	3030	3054	3079	3073	**3033**
Cables	1032	1035	1060	1060	1111	1175	**1079**
Equity	7712	7919	8128	8581	9319	9560	**8537**
ICDC	2152	2300	2546	2840	3152	3409	**2733**
KCB	114275	114244	114690	113972	113964	114298	**114241**
NMG	9203	9261	9312	9370	9459	9546	**9359**
Sasini	1694	1697	1680	1726	1726	1995	**1753**

APPENDIX 3

Number of Shareholders After Split Announcement

Company	M +1	M +2	M +3	M +4	M +5	M +6	Mean
CMC	5408	7330	8181	9462	10199	10819	**8567**
Cables	8837	10547	11647	12454	14170	15072	**12121**
Equity	15875	19325	20935	20988	30015	30221	**22893**
ICDC	4813	5272	5644	6310	6398	6423	**5810**
KCB	114800	129293	129293	129293	150034	147117	**133305**
NMG	9251	9296	9376	9376	9433	9821	**9426**
Sasini	3027	4539	5270	5499	6151	6151	**5106**

APPENDIX 4

Split Announcement Dates, Split Ratios and the Effective Dates

Company	Split Dates	Split Ratios	Effective Dates
CMC	Jan. 2007	10:1 – 900%	Mar. 2008
Cables	Aug. 2006	10:1 - 900%	Sept. 2006
Equity Bank	Feb. 2009	10:1 – 900%	Apr. 2009
ICDC	Oct. 2006	10:1 – 900%	Jan. 2007
KCB	Mar. 2007	10:1 – 900%	Jun. 2007
NMG	Mar. 2008	2:1 – 100%	Aug. 2008
Sasini	Dec. 2006	5:1 – 400%	Feb. 2007

APPENDIX 5

Number of Shares Before and After Splits

Company	Before Splits	After Splits
CMC	48,559,120	485,591,200
Cables	20,250,000	202,500,000
Equity Bank	370,277,702	3,702,777,020
ICDC	54,995,183	549,951,830
KCB	199,600,000	1,996,000,000
NMG	71,305,260	142,610520
Sasini	38,009,250	228,054,985

Source:

Foreign Investors Shareholding Status in Quoted Companies (Company Registrars).