AN INVESTIGATION INTO THE REVERSE STOCK SPLITS AT THE NAIROBI SECURITIES EXCHANGE, KENYA.
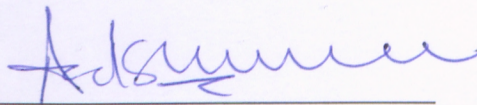
BY

LUDESHI THOMAS AMASA

A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI.

OCTOBER 2012.

DECLARATION

I hereby declare that this study is my original work, which has never been produced for a degree at the University of Nairobi or any other University. All borrowed pieces of work from various authors to back up the discussion have been duly acknowledged in the references. No part of this dissertation may be reproduced without the permission of the author and/or the University of Nairobi.
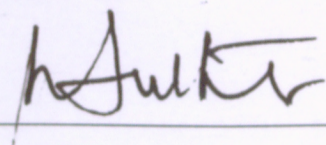
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THOMAS AMASA LUDESHI

REG. NO. : D61/62092/2010

Declaration by supervisor

This dissertation has been submitted for examination with my approval as University supervisor.

Signature:_____ Date: __11·11·2012__

LUTHER OTIENO, University Of Nairobi.

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DEDICATION

This project is dedicated to my dear parents and entire family for their support and encouragement during the entire period.

ABSTRACT

This study investigates the need for introducing reverse stock splits at the Nairobi Securities Exchange, Kenya. As most companies at the NSE have relatively large numbers of outstanding shares or their share prices are relatively low, the research tries to find out if the introduction of reverse splits would be welcomed by the managers of the various companies listed at the NSE.

An exploratory research design was used and data was collected from fifty two managers by use of a questionnaire. This methodology was used because little information is known about reverse stock splits in Kenya and hence the findings would be useful for future analysis and generation of hypotheses. A chi-square test was then carried out to analyze the data.

The findings reveal that there are many advantages associated with reverse stock splits but they do not outweigh its disadvantages. However, managers would recommend their companies to reverse split so as to attract institutional investors and hence, they support the case for the introduction of reverse stock splits in Kenya.

This would mean that the various institutions like the Capital Markets Authority and the Nairobi Securities Exchange responsible for regulating the securities market should advocate for legislation that would allow the introduction of reverse stock splits and hence formulate policies that will govern the process.

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ABBREVIATIONS & ACRONYMS

AMEX: American Stock exchange

CMA: Capital Markets Authority

CRSP: Center for Research in Security Prices

CMA: Capital Markets Authority

EMP: Efficient Market Hypothesis

EPS: Earnings per Share

IPO: Initial Public Offer

JSX: Jakarta Stock Exchange

KPLC: Kenya Power and Lighting Company

NASDAQ: National Association of Securities Dealers Automated Quotations

NSE: Nairobi Securities Exchange

NYSE: New York Stock Exchange

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INTRODUCTION

1.1 Background Of The Study

Most investors fall under two categories – growth and value investors, this is according to Abel (2005), and both offer compelling reasons for their preference. Growth investors will tell you the growth stocks mature over time, because their underlying earnings rates grow at rates faster than the market as a whole. Value investors will convince you that value stocks are better because you buy cheap stocks whose value will appreciate latter.

Hence, for most investors, growth stocks are ideal for creating wealth. In order to reap maximum benefits from the equity market, it is advisable to be a long term investor rather than a short term speculator. If one buys Kenya airways shares thinking the price will rise by ten per cent in two weeks, then that is speculating. However, if one buys Uchumi supermarket shares because she hopes that the stock will have good earnings per share in five to ten years and that they are reasonably priced given those earnings per share growth expectations, then that is investing.

1.1.1 Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) was first portrayed by Fama (1965) and states that current market prices of assets/stocks reflect all available market information, and investors would trade stocks depending on these prevailing prices hence influencing the number of shares being bought or sold. If the EMH is strong,

then the stock prices would reflect both private and public information and hence adjust accordingly. If not, i.e. EMH is semi strong or weak, then prices will persistently be at a minimum low since they do not reflect both public and private information. The market is hence made efficient by the demand and supply pressures. A stock price is always at the fair level (fundamental value), reacts to news immediately and changes only when the fair level changes, therefore, stock price changes are unpredictable because no one knows tomorrow's news. When there is a stock split or a reverse stock split announcement, this information is absorbed by the market and in an efficient market, the stock prices will adjust according to the forces of demand and supply with most activities on the days just before and after the splits, until the prices adjust to their true market value.

1.1.2 Reverse Stock Splits

A stock split (or forward split) is a corporate action, usually effected by amendment to the articles, to increase by a multiple the number of outstanding shares of a class without altering the equity capital of the corporation. Thus, in a 2 for 1 split of a class of par value shares, the corporation will replace each outstanding shares of that class with 2 new shares of half the original par value. The amount of equity capital stays the same, only the number and the value of each share will change. Likewise, in corporations with no par value shares, the market value of the stock should decrease in a manner inversely proportional to the increase in the number of shares.

Wooldridge and Chamber (1983) came up with another version of a stock split; the reverse split, which basically involved the substitution of one new share for a certain

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number of outstanding shares. It can be declared by a corporation's board of directors for many specific reasons. This reverse split will have a ratio of old shares for new. A 1:10 reverse split would take 10 old shares for each new one, for example, a company that had 10 million shares outstanding and declared a 1:10 reverse split would have a million shares outstanding after the reverse split. In addition, the share price of the stock would also increase by the same ratio. They noted that the procedure was typically used by companies with low share prices that wanted to increase prices to either gain more respectability in the market or to prevent the company from being delisted. This was found to be because many stock exchanges de-listed stocks if they fell below certain prices per share. They found that the announcement of a reverse split elicited a negative stock market response. They saw a notable difference between stock split and reverse split being that, while regular splits could be ends in themselves as vehicles to correct stock undervaluation, reverse splits did not aim at signaling the firm value but at moving share prices to more attractive trading ranges.

Event studies in the U.S. market show that abnormal returns around the announcement date are negative and small firms have stronger negative reaction, Lamoureux and Poon(1987), Peterson and Peterson (1992). However, this negative response is contrary to the results in Canada where market reacts positively with a cumulative abnormal return of 9.3 percent on the announcement date that is thereafter maintained, Masse et al. (1997). No significant market response to the ex-date is observed. The adjusted trading volume increases considerably after reverse splits. This result partially suggests that the reverse stock improve the liquidity of the stock.

1.1.3 The Nairobi Securities Exchange (NSE)

Hence, in light of this, both low priced growth and value stocks in most developed and developing countries have raised a lot of concern as they give negative information about the future performance of the stock in the stock market. Some companies have therefore resorted to having a reverse stock split for this and many other reasons. What about the case for Kenya? The NSE which is Kenya's securities market comprises of 60 listed companies from 9 different sectors namely agricultural, automobile, banking, commercial and services, energy, construction, insurance, telecommunication and manufacturing. These companies are further grouped into two; The 20 share index which is price weighted and an all-inclusive NSE All Share Index which is market capitalization weighted. Price weighted indices are based on a geometric mean of average prices of the constituent companies which are equally weighted. In line with best practice, the market indices are reviewed periodically to ensure that they reflect an accurate picture of market performance. The criteria used in reviewing the indices involves weighting market performance measures for a twelve-month period as follows; Market capitalization 40%, Shares traded 30%, Number of deals 20% and Turnover 10%.

Hence in its daily activities, the NSE has played a major role in facilitating the mobilization of capital for development and provides savers in Kenya with an alternative saving tool. Funds that would otherwise have been consumed or deposited in bank accounts are redirected to promote growth in various sectors of the economy. This is done by improving efficiency in mobilization of savings as capital is allocated to investments that bring the most value to the economy. The NSE therefore provides enterprises with a non-bank source of financing through the sale of shares to the

public. It provides not only the substitution but also diversification of risk to entrepreneurs as they raise capital through equity. The activity in the market further serves as a barometer for the performance of the economy. The movement of shares is an indicator of the general trend in the economy because share prices tend to rise or be stable when the economy and the relevant companies are stable and growing. However, some share prices in the NSE have persistently been low despite the company's performance being rated as high. Those with relatively high share prices have at times decided to undergo a stock split, but on the other hand, a reverse stock split has not been witnessed for the stocks that have low share prices trading at the NSE.

1.2 Statement Of The Problem

For this reason, we tend to ask why companies do not undergo a reverse stock split at the NSE. As reverse splits have been used across the world for many reasons with their own advantages, little information has been gathered to ascertain why there have been no reverse stock splits in Kenya despite its advantages. In Indonesia, study by Savitri and Martani (2008) at the Jakarta Stock exchange (JSX) between 2001 and 2005 on reverse stock split showed a significant abnormal return between third days before to first day after split. The results revealed that reverse stock split have more effect to the stock return than stock split. There was significant volume difference between the days before and after the reverse stock split.

In the United States of America, there have been 145 reverse stock splits announced at the NASDAQ, AMEX and NYSE between January 2003 and December 2005. Study by Beaulieu and Sodjahin (2008) reveal that the reverse split decisions were

essentially motivated by unusual rundowns in stock price and poor growth opportunities. Controlling for price level and prospect indicators, firms appear to be more concerned with corporate image in general and investor perceptions in particular and will therefore choose larger reverse split sizes when directors are subject to stock ownership requirements. This implies that directors' incentives lead to different decisions regarding the choice of reverse split factor than when directors' wealth is independent of the firm's value. Firms with larger reverse split sizes are more likely to survive given that their post reverse split prices high enough to attract institutional investors and to meet listing requirements.

In Canada, Masse, Hanrahan et al. (1997) find positive abnormal return for reverse stock splits that is sharply contrast with U.S. studies. They provide possible explanations for Canadian results. This may have resulted from institutional differences between the two countries such as stock exchange regulation and government legislation. For example, the

Toronto Stock Exchange has no minimum price requirements for the delisting of securities, while the AMEX requires a minimum price of US$ 3 per share and the NASDAQ requires that the bid price be at least US$ 5 per share for initial listing.

The decision to reverse split may be discretionary or non-discretionary. Non-discretionary reverse splits include those reverse splits required to satisfy the listing requirement. Peterson and Peterson (1992) argue that the motives to discretionary reverse splits are associated with the commissions, reputation and marketability, and companies forced to reverse splits have positive wealth effect.

In Hong Kong market, firms generally issue a prospectus to raise their proposal of reverse splits. Prospectus usually contains the reasons for the capital reorganization as well as the expected timetable and other information about the firms. Among various reasons, reverse split will reduce transaction costs for dealings in the consolidated shares. As firms listed in Hong Kong Stock Exchange have the discretion on board lot size of their stocks, most firms choose to remain the board lot size at pre-split level upon the consolidation becoming effective.

In Kenya today, ten companies listed at the NSE have over 1 billion outstanding shares. These companies include Safaricom leading the pack with a total of 40billion shares, then Barclays Bank, Equity Bank, Co-operative Bank of Kenya, Kenya Commercial Bank, KenGen Ltd, British-American Investments, KPLC, Mumias Sugar and Kenol Kobil Ltd.

On the other hand, ten companies have their share prices trading for less than Kshs. 10 and this has been so for the three months of May, June and July 2012. These companies include Eveready East Africa, Safaricom, Olympia Capital Holdings, Express Ltd, Sameer Africa, Access Kenya, British-American Investments, Mumias Sugar, CFC Insurance Holdings and KenGen Ltd. In addition, most of these companies have both characteristics, i.e. have a lot of shares and also have their prices below Kshs. 10 for the three months. These companies can be singled out as Safaricom, British-American Investments, Mumias Sugar and KenGen Ltd. See appendices II and III.

If the above mentioned companies were to consolidate their shares through a reverse stock split, then the costs incurred by companies while sending financial reports to every shareholder at the end of the financial year would be greatly minimized. Prices of the stocks will also rise and hence make the shares more attractive to investors.

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However, there is no guarantee that every company would decide to reverse split because of the conflicting views on the advantages and disadvantages of making such a decision. This creates a gap and the need to find out the different opinions from the chief executives who run these companies on a daily basis.

There are those managers and shareholders who would advocate for a reverse split and others would not. Hence, this research would therefore seek to answer the following question: Why are reverse stock splits less common than stock splits and why don't we have companies in Kenya engaging in reverse stock splits?

1.3 Objectives Of The Study

The main objectives of the study are to:

I.   To find out the main reasons why companies may choose to or not to undertake a reverse stock split.

II.   Investigate why there are no reverse stock splits at the Nairobi securities exchange (NSE) despite some stock prices consistently being low for a long period of time.

1.4 Value Of The Study

This study would therefore shed light on companies' expectations about reverse stock splits. The study will also contribute to the literature by providing insights on factors associated with reverse split decisions. Compared to the stock split, little research has been conducted regarding the motivation for reverse splits or the information content of the reverse split factor. Hence, this research would try to close this gap by

analyzing the factors that contribute to the absence of reverse stock splits at the Nairobi Securities exchange. These findings will therefore be useful to: The investors who buy stocks with the hope of making good returns on their investment i.e. buying cheap and selling at a high price or earn dividends from returns gained; The companies which have stock prices relatively low or high number of shares and want to make a turn around by increasing prices and reduce number of shares simultaneously; and finally the Capital Markets Authority (CMA) which as the industry regulator will be tasked to analyze if there is need for legislation that allows companies in Kenya to reverse split their shares.

CHAPTER TWO

LITERATURE REVIEW

2.1 Efficient Market Hypothesis

The efficient market hypothesis (EMH), popularly known as the Random Walk Theory, is the proposition that current stock prices fully reflect available information about the value of the firm, and there is no way to earn excess profits, (more than the market overall), by using this information. The first time the term efficient market was used was in a 1965 paper by E.F. Fama who said that in an efficient market, on the average, competition will cause the full effects of new information on intrinsic values to be reflected instantaneously in actual prices.

Many investors try to identify securities that are undervalued, and are expected to increase in value in the future, and particularly those that will increase more than others. The main engine behind price changes is the arrival of new information. A market is said to be efficient if prices adjust quickly and, on average, without bias, to new information. As a result, the current prices of securities reflect all available information at any given point in time. Consequently, there is no reason to believe that prices are too high or too low. Security prices adjust before an investor has time to trade on and profit from a new piece of information.

The key reason for the existence of an efficient market is the intense competition among investors to profit from any new information. The ability to identify over and underpriced stocks is very valuable because it would allow investors to buy some stocks for less than their true value and sell others for more than they were worth. Consequently, many people spend a significant amount of time and resources in an

effort to detect mispriced stocks. Naturally, as more and more analysts compete against each other in their effort to take advantage of over- and under-valued securities, the likelihood of being able to find and exploit such mis-priced securities becomes smaller and smaller. In equilibrium, only a relatively small number of analysts will be able to profit from the detection of mis-priced securities, mostly by chance. For the vast majority of investors, the information analysis payoff would likely not outweigh the transaction costs.

The most crucial implication of the EMH can be put in the form of a slogan: Trust market prices! At any point in time, prices of securities in efficient markets reflect all known information available to investors. There is no room for fooling investors, and as a result, all investments in efficient markets are fairly priced, i.e. on average investors get exactly what they pay for. Fair pricing of all securities does not mean that they will all perform similarly, or that even the likelihood of rising or falling in price is the same for all securities. According to capital markets theory, the expected return from a security is primarily a function of its risk. The price of the security reflects the present value of its expected future cash flows, which incorporates many factors such as volatility, liquidity, and risk of bankruptcy. However, while prices are rationally based, changes in prices are expected to be random and unpredictable, because new information, by its very nature, is unpredictable.

Therefore stock prices are said to follow a random walk. The random walk theory asserts that price movements will not follow any patterns or trends and that past price movements cannot be used to predict future price movements.

The numerous methods for analyzing and valuing stocks pose some problems for the validity of the EMH. If one investor looks for undervalued market opportunities while

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another investor evaluates a stock on the basis of its growth potential, these two investors will already have arrived at a different assessment of the stock's fair market value. Therefore, one argument against the EMH points out that, since investors value stocks differently, it is impossible to ascertain what a stock should be worth under an efficient market. Eugene Fama never imagined that his efficient market would be 100% efficient all the time. Of course, it's impossible for the market to attain full efficiency all the time, as it takes time for stock prices to respond to new information released into the investment community. The efficient hypothesis, however, does not give a strict definition of how much time prices need to revert to fair value. Moreover, under an efficient market, random events are entirely acceptable but will always be ironed out as prices revert to the norm. Prices should respond nearly instantaneously with the release of new information that can be expected to affect a stock's investment characteristics. So, if the EMH allows for inefficiencies, it may have to admit that absolute market efficiency is impossible. For greater efficiency to occur, the following criteria must be met: (1) universal access to high-speed and advanced systems of pricing analysis, (2) a universally accepted analysis system of pricing stocks, (3) an absolute absence of human emotion in investment decision-making, (4) the willingness of all investors to accept that their returns or losses will be exactly identical to all other market participants.

2.2 Characteristics Of A Reverse Stock Split

Most of the previous literature has documented negative abnormal returns around reverse split dates. Empirical evidence shows that reverse splits are viewed as a negative signal about future performance, since the only way for reverse-splitting firms to improve their stock price is through artificial means (Spudeck and Moyer, 1985). A rational manager expecting earnings and price growth would not incur reverse split costs. Moreover, managers may undertake reverse splits to maintain listing on the current exchange. Some empirical studies have also revealed certain value-improving results. Reverse splits increase liquidity (Han, 1995), increase investors' ability to buy the stock on margin (Masse, Hanrahan, and Kushner, 1997), improve the stock's image and make it more attractive to institutional investors (West and Brouilette, 1970) and decrease risk (Peterson and Peterson, 1992). These are all

wealth-enhancing benefits that should result in a positive market reaction to the news of a reverse split as observed by Masse et al. (1997) in the Canadian market. However, Woolridge and Chambers (1983), Spudeck and Moyer (1985), Lamoureux and Poon (1987), Peterson and Peterson (1992) and Han (1995) all documented a negative price reaction with respect to reverse splits. Therefore, conducting the reverse split strategy may reflect managements' pessimism about their stocks' ability to reach an attractive trading range and are believed to convey managements' signal of a lack of future earnings improvement or past earnings persistence.

Vafeas (2001) and Robinson (2008) examine the earnings performance of reverse stock splits. Nikos Vafeas's results show that pre-split earnings and returns are significantly negative. Robinson provides a direct evidence concerning that reverse splits portend bad news about future earnings prospects. Given the finding of negative market reactions surrounding reverse stock splits announcements, it is argued that

reverse stock splits implicitly convey managements' pessimism and signal a potential lack of past/future earnings improvement.

Through reverse-splitting events, investors will realize that managers do not expect firms' operating performance to improve in the future. Martell and Webb (2008) note that firm reverse splitting its stock is often interpreted as a virtual public acknowledgement that the managers have no better means to raise the price of their firm's stock. Reverse splits are therefore viewed as almost desperate efforts by the firm to raise its stock price high enough to meet the minimum price required to maintain continued listing as experienced on the NYSE, the AMEX, or NASDAQ. This can be viewed in the case of online marketing company; popmail.com, Chinese supermarket chain QKL inc., American Video game Company THQ and News and Information company Lee enterprises which decided not to go for a reverse split.

Lee (2010) used traditional event study and calendar time approach to investigate the operating performance changes surrounding reverse stock splits. The tests, based on a sample of 543 reverse stock splits from the period 1987-2001 in the U.S. stock markets, had several interesting conclusions. First, reverse stock splitting firms are always performing poorer relative to their industry matched median firms. Such results suggest that stocks with reverse splitting experiences may not be good investing instruments for investors. Second, firms of different types exhibit different operating performance changes around reverse stock splits. In general, reverse splitting stocks experience significant underperformance afterward, especially for firms with absolute larger split factors, lower stock price and smaller firm sizes. In addition, stock market shows negative reactions to reverse events and there exists positive relationship between negative abnormal returns and underperformance. All

the evidence suggests that during the stock reverse split's execution period, investors appear to corroborate their expectations that future operating performance decreases are permanent rather than transitory. In conclusion, the results above lend support to the hypothesis that reverse stock splits convey negative information to investors and reduce shareholders' wealth. This negative information is hypothesized to be that investors interpret reverse splits as admissions from managers that share prices are not likely to increase in the near future based on managers' cognition on overall performances.

2.3 Advantages And Reasons For A Reverse Stock Split

Companies that have chosen to have a reverse stock split on their shares have done this because of the various reasons and advantages that it holds. In a 1977 study of reverse splits, nearly half of the firms that reverse split their stock offered no public explanation at all for the split. Of the firms that made public announcements, the most common reason given was image improvement. This was followed by exchange requirements, then appealing to a different type of investor, and finally, reduction in shareholder service costs (Gillespie & Seitz, 1977).

A company in financial trouble may be in need of a capital injection to survive, but potential investors will want assurances of a reasonable return on their investment. A low stock price is a disincentive for them to invest. Hence, a reverse stock split may make it possible for a company to attract investors and raise capital. On the other hand, a reverse stock split can be a sign of a company in financial trouble as well, but more often, the reason a reverse split is necessary is because the share price sank.

Hence, the reverse split will lead in an increase in the share price but does not change any of the fundamentals associated with the company.

But more importantly, reverse splits can cause more investors to look at a stock because of the sudden increase in share price. This may not save the company, but it is often an indication that the management is taking steps to reverse the slide and turn things around.

Reverse stock splits may also save a company from delisting, and this can be viewed in the case of American companies e.g. at the NYSE where the minimum trading price is one US dollar. According to Federov (2011), if a stock price drops too low, the company may be in violation of listing compliance, meaning that if its stock price does not increase above a certain threshold by a specified deadline, the stock may be delisted from the stock exchange. Delisting is often a death blow to the shareholders, who won't be able to buy or sell the stock.

Han (1995) showed that the liquidity of equity is improved after a reverse stock split. He proxied liquidity with the bid-ask spread, trading volume, and the number of non-trading days. He compared split firms with control firms and concluded that for the reverse split stocks, the spread is reduced, the volume is increased, and there are fewer days during which the stock is not traded. In addition, he showed that bid-ask spread decreases and trading volume increases after the reverse split. Hence, reverse split improves the liquidity of a stock because the increased share price allows investors to buy the stock on margin. Brokers do not allow their customers to buy low-priced shares on margin. Therefore, a reverse split improves liquidity by allowing margin investors access to the stock. Another reason Han (1995) gave is that the increase in share price improves the market's perception of the stock. As discussed

above, institutional investors are more likely to purchase shares that they can justify to their clients.

Peterson and Peterson (1992) found that the total risk of returns of reverse split stocks declined after the reverse split. Brennan and Copeland (1998) documented decreasing risk shifts for forward splits. However, Peterson and Peterson showed that systematic risk does not change after reverse splits. In contrast, Brennan and Copeland found that systematic risk decreased around forward splits.

Peterson and Peterson (1992) found positive wealth effects for companies that were forced to reverse split. Companies that were not forced to reverse split did not exhibit the same wealth effect. Their research showed that firms were less risky after a reverse split because of decreased nonsystematic risk.

Reverse splits also reduce transactional costs. Researchers have shown that the higher price range after a reverse stock split results in lower percentage bid-ask spreads, and thus the transaction costs are lowered. The lower bid-ask spread is probably due to the increased liquidity of the stock at its post reverse split price. However, a possible lost tax savings after a reverse stock split can also be considered a "transaction cost." Volatility decreases after a reverse stock split, and firms (and investors) are less able to take advantage of tax laws that allow them to expense a paper loss.

The majority of the reverse-splitting firms do not change their board lot size after splits, they therefore reduce transacting costs. The relative tick sizes, which also affect the transaction cost, decrease significantly after splitting.

The management on the other hand can as well push for a reverse stock split for other various reasons. Bank (2011) states that these reasons may include eliminating of

small shareholders, gain a certain corporate classification as well as anticipate for a forward split in the future.

When a stock reverse splits, shareholders who hold less than the specified number of shares will receive cash instead of new shares, ending their status as shareholders. For instance, a 1:500 reverse split will eliminate shareholders who own less than 500 shares, since there is no provision for a fractional share. A large reverse stock split is thus an effective method of lowering the number of shareholders. Cashed-out shareholders may not appreciate losing their stakes in a company. To them, the reverse split is not beneficial.

To change a company's corporate classification, a reverse stock split can be used as seen in the following example. A Subchapter S corporation can be classified as one in which income is passed through directly to shareholders, who then pay income tax on it. A normal Subchapter C corporation can be reclassified as Subchapter S if its number of shareholders dips below 100. By setting the reverse split ratio high enough, it is feasible for a corporation to shed enough shareholders to be reclassified.

Lastly, if a company uses a reverse split to reclassify itself by shedding stockholders, it can undergo the reclassification and then immediately issue a forward split that reverses the reverse split. This reestablishes the share price to pre-reverse-split levels. Forward reverses used in this way are almost always preceded by reverse splits. Management benefits from forward splits by effecting a reduction of shareholders and establishing a more desirable classification without affecting share prices.

2.4 Challenges Of Reverse Stock Split

Studies of reverse splits in the late 1970s and early 1980s find that there is a small increase in volume and a decrease in the number of shareholders after the split, but the institutional interest remains unchanged. The studies conclude that reverse splits are not justified because they are, in general, detrimental to shareholder wealth. Moreover, reverse stock splits are not justified by the reasons cited by managerial surveys because there are no tangible benefits related to those reasons. In addition, Radcliffe and Gillespie (1979) studied only firms that survived their test period, so it is likely that they understated the negative effects of the reverse splits on shareholder wealth (Woolridge & Chambers, 1983).

Another negative effect of the reverse split is the decrease of the tax option value of stocks. The investor has more possible tax alternatives when stock is more volatile. High volatility allows investors to take advantage of tax laws by offsetting capital gains with capital losses. Reverse splits decrease volatility and therefore decrease the tax option value. Forward splits, on the other hand, increase volatility (Lemoureux & Poon, 1987).

Academics in accounting also provide explanations for negative market reaction to stock splits announcement. Vafeas (2001) documents that reverse-splitting firms report significantly lower earnings in the pre-split years than a sample of matched control firms. Their earnings performance is expected to persist in the future. Therefore, following a reverse split market participants value the firm's earnings information once again and the market response negatively. With regard to regular stock split, a mirror image of the reverse split,

Asquith et al. (1989) find that regular splitting firms have superior earnings performance in the years before the splits. The regular stock split conveys to the market that the favorable pre-split performance is not temporary and will persist in the post-split years. Their finding is significant even after adjusting for contemporaneous industry performance. These two findings support the signal hypothesis that stock distribution itself conveys the information of pre-split earning performance to the market.

Grinblatt, Masulis and Titman [GMT] (1984) study a sample of stock splits and report a positive abnormal return of 3.3% over the two-day event period surrounding the announcement. Woolridge and Chambers (1983) document that reverse splits are associated with negative abnormal returns at their announcement and ex-date. They even suggest that upon learning of an impending reverse split, investors should sell their shares.

Numerous findings illustrate the long–run common stock returns following stock splits and suggest that the stock market under reacts to the information conveyed in the stock splits. Desai and Jain (1997) document that stock regular splitting firms, on average, earn significant abnormal returns of 7.05% for the 1-year period after the announcement month. The abnormal returns for the 2- and the 3-year periods after the announcement month are 9.39% and 11.87%, respectively. The results of reverse splits further verify the under reaction of stock market. The 1-, 2- and 3-year abnormal returns following the reverse splits announcement month are –10.77%, –20.62%, and –33.90%, respectively. Thus, for both stock regular splits and reverse splits, the long-run performance or drift is in the same direction as the initial announcement month abnormal returns. Many believe that there is a favorable stock price range in which the price is more attractive to investors [GMT (1984);

Lakonishok and Lev (1987)]. Therefore, reverse split may be used to place the stock price in this range. Share prices that are too low may harm marketability. In the U.S., institutional investors usually view low priced securities as speculative investment and drop these securities from their portfolio. Firms whose stock trade at very low price may wish to change their image as issuers of 'penny' stock through reverse splits.

Since the regular stock splits and reverse splits are noneconomic events, how can the significant abnormal return for stock splits be explained? People argue that it is because stock splits have strong signal effect, Spudeck and Moyer (1985). A widely held view is that when a company splits its stock, management is sending a positive information signal to investors that the stock is undervalued, Brennan and Copeland (1988), McNichols and Dravid (1990).

Since the hypothesis of negative returns following reverse stock splits is supported by a number of empirical studies, why would firms voluntarily send a negative signal to the market through a reverse split? Han (1995) examines why management would employ reverse splits when they adversely affect shareholders. His findings shows that reverse split enhance the liquidity of the stock: the stock experienced a significant decrease in bid-ask spread, a significant increase in trading volume and a significant decrease in the number of non-trading days following reverse splits. On the other hand, Dravid (1987) demonstrates that post-split volatility of returns for reverse splits decreases for these events, which is supported by the findings of Peterson and Peterson (1992). Compared with results of the reverse splits, there is a permanent decrease in relative liquidity following the splits: (1) volume increases less than proportionately after regular splits; (2) post-split bid-ask spreads increase significantly

as a percentage of the value of the stock, Copeland (1979). Copeland also argue that the shareholders agree to splits even experiencing the lower liquidity is because the benefits may exist from splitting that equal or exceed the liquidity costs. For example, it is somewhat cheaper to diversify after a split because smaller values can be traded at round-lot transaction costs. Also, splits may have a value as messages which forecast anticipated dividend increase.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

An exploratory research design was used to conduct the research. The design involved gathering information on reverse stock splits in Kenya hence establish the reasons as to why companies undergo a reverse stock split and why this hasn't been the case for Kenya. This design was used because little is known about reverse splits in Kenya and hence it helped gather pertinent information about the issue and paved way for future analysis and hypotheses to be generated.

3.2 Study Population

The sample population consisted of sixty firms listed at the Nairobi Securities Exchange (see appendix I). Out of this previous target, eight firms did not give a response and this led to a final data collected and analyzed from fifty two firms listed at the NSE. Expert insight was then sought from managers of these firms on their extent of agreement or disagreement to various issues regarding reverse stock splits, whether the disadvantage outweighed the advantages and what the benefit of reverse stock splits would be to companies if it was practiced in Kenya today.

3.3 Data Collection

Primary data was collected using questionnaires in form of a five level likert scale ranging from "Strongly Disagree" on one end to "Strongly Agree" on the other with "Neutral in the middle" (see appendix VI); through email correspondence and telephone interviews. Respondents were asked to indicate their level of agreement with a given statement by way of an ordinal scale. The data collected also captured the advantages and disadvantages of a reverse stock split. This ensured there was content validity on the instrument used and the same results can be replicated in future research work.

In addition, data on Kenyan listed companies was collected from various sources which included; the NSE website, listed stock brokerage firms and listed companies' websites, as well as from the rights issue prospectus of various companies. This involved a total of 60 firms classified according to the Economic sector they belong.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Data Analysis

In-depth analysis of the data collected is done to find out the different results and compare responses from the different respondents. Out of the 60 firms previously targeted, 52 firms managed to give a feedback. Data analysis methods used for individual questions (ordinal data) include use of median and mode to display central tendency; and variability/spread by use of range and inter-quartile range. For statistical inferences, non-parametric test (differences between the medians of comparable groups) was used. The data from the likert scale was reduced to a binomial level by combining all agree and disagree responses into two categories of accept and reject. A chi-square test was then used for the analysis.

4.2 Results

4.2.1 Advantages Of Reverse Stock Splits

The tables below show the observed frequencies and percentage responses on the advantages of a reverse stock split.

Saves a company from delisting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	53.8	53.8	53.8
	No	24	46.2	46.2	100.0
	Total	52	100.0	100.0	

Helps attract institutional investors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	48	92.3	92.3	92.3
	No	4	7.7	7.7	100.0
	Total	52	100.0	100.0	

Higher prices increase liquidity and reduce risk of a stock

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	90.4	90.4	90.4
	No	5	9.6	9.6	100.0
	Total	52	100.0	100.0	

Reduced total outstanding shares reduces operating costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	37	71.2	71.2	71.2
	No	15	28.8	28.8	100.0
	Total	52	100.0	100.0	

From the observations above, most respondents view the biggest advantage of a reverse stock split is that it helps attract institutional investors (92.3%). This is closely followed by increase liquidity and reduces risk (90.4%); reduces operating costs (71.2%) and lastly, saves a company from being delisted from the securities exchange (53.8%).

4.2.2 Disadvantages Of Reverse Stock Split

The tables below show the observed frequencies and percentage responses on the disadvantages of a reverse stock split.

Signals that the company is in financial trouble

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	51	98.1	98.1	98.1
	No	1	1.9	1.9	100.0
	Total	52	100.0	100.0	

May be used to eliminate small shareholders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	94.2	94.2	94.2
	No	3	5.8	5.8	100.0
	Total	52	100.0	100.0	

Reduces shareholder's wealth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	38	73.1	73.1	73.1
	No	14	26.9	26.9	100.0
	Total	52	100.0	100.0	

Portrays the company as lacking future earnings improvement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	27	51.9	51.9	51.9
	No	25	48.1	48.1	100.0
	Total	52	100.0	100.0	

The biggest disadvantage of a reverse stock split is that it may signal that the company is in financial trouble (98.1%); may be used to eliminate small shareholders (94.2%); reduces shareholder's wealth (73.1%) and lastly it portrays the company as lacking future earnings improvement (51.9%).

4.2.3 Descriptive Statistics

In the table below, mean and median has been used to display central tendency.

						Percentiles		
Descriptive Statistics								
	N	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**	**25th**	**50th (Median)**	**75th**
Companies with low share prices should reverse split	52	1.21	0.5	1	3	1	1	1
There is need for introducing rules governing reverse stock splits in Kenya	52	1.9	0.75	1	3	1	2	2
Earnings per share increases in case of a reverse split	52	1.92	0.97	1	3	1	1.5	3
Recommend for a reverse split to attract institutional investors	52	2.08	0.9	1	3	1	2	3
Reverse splits usually succeed in the long run	52	1.63	0.6	1	3	1	2	2
Directors to make final decision on reverse splitting and not shareholders	52	2.23	0.76	1	3	2	2	3
Advantages of reverse split outweigh its disadvantages	52	1.62	0.89	1	3	1	1	3

The data for agree and disagree responses were combined into two categories of accept and reject; and these were coded as follows: Reject (1), Neutral (2) and accept (3).

4.2.4 Chi – Square Test

The chi-squared test statistic, X^2, resembles a normalized sum of squared deviations between observed and theoretical frequencies. From the data collected, frequencies observed and the frequency expected were tabulated for each question in the likert scale.

<u>Frequencies</u>

Companies with low share prices should reverse split

	Observed N	Expected N	Residual
reject	43	17.3	25.7
neutral	7	17.3	-10.3
accept	2	17.3	-15.3
Total	52		

There is need for introducing rules governing reverse stock splits in Kenya

	Observed N	Expected N	Residual
reject	17	17.3	-3
neutral	23	17.3	5.7
accept	12	17.3	-5.3
Total	52		

Earnings per share increases in case of a reverse split

	Observed N	Expected N	Residual
reject	26	17.3	8.7
neutral	4	17.3	-13.3
accept	22	17.3	4.7
Total	52		

Recommend for a reverse split to attract institutional investors

	Observed N	Expected N	Residual
reject	19	17.3	1.7
neutral	10	17.3	-7.3
accept	23	17.3	5.7
Total	52		

Reverse splits usually succeed in the long run

	Observed N	Expected N	Residual
reject	22	17.3	4.7
neutral	27	17.3	9.7
accept	3	17.3	-14.3
Total	52		

Directors to make final decision on reverse splitting and not shareholders

	Observed N	Expected N	Residual
reject	10	17.3	-7.3
neutral	20	17.3	2.7
accept	22	17.3	4.7
Total	52		

Advantages of reverse split outweigh its disadvantages

	Observed N	Expected N	Residual
reject	34	17.3	16.7
neutral	4	17.3	-13.3
accept	14	17.3	-3.3
Total	52		

Test Statistics

From the tabulated data above, we determine the degrees of freedom, d of the statistic, which is essentially the number of frequencies reduced by the number of parameters of the fitted distribution $\{d = (\text{no. of rows} - 1) \times (\text{no. of columns} - 1)\}$.

	Companies with low share prices should reverse split	There is need for introducing rules governing reverse stock splits in Kenya	Earnings per share increases in case of a reverse split	Recommend for a reverse split to attract institutional investors	Reverse splits usually succeed in the long run	Directors to make final decision on reverse splitting and not shareholders	Advantages of reverse split outweigh its disadvantages
Chi-Square (X^2)	57.731	3.500	15.846	5.115	18.500	4.769	26.923
d	2	2	2	2	2	2	2
Asymp. Sig.	.000	.174	.000	.077	.000	.092	.000

X^2 is then compared to the critical value of significance from the X_d^2 distribution, which is an approximation of the distribution of X^2 (see appendix IV). We use 0.05 as our level of significance while comparing X^2 value with the probability table. Where the X^2 value is less than ($<$) the table value of chi – square probabilities, we accept the null hypothesis, but if it is greater than or equal to ($\geq$) the table value, then we reject the null hypothesis. The table value of chi-squared probabilities at $d = 2$ with 0.05 level of significance is 5.991(see appendix IV). If the null hypothesis is rejected, then it would mean that there is a significant difference between the data sets and this difference cannot be due to chance alone.

4.3 Discussion

Most respondents considered the greatest advantages of a reverse stock split as its ability to attract institutional investors; increase liquidity and reduced stock risks with 92.3 % and 90.4 % of respondents agreeing to these respectively. This high percentage can be attributed to the fact that managers would be willing to welcome huge capital injection into their companies as this new capital can be used to fund various projects and expansion plans of the firm. Improved stock prices would also mean that new investors will not shy from buying the stocks at the securities exchange since they would have confidence in them, and this increases liquidity and reduces risk.

Reduced company operating costs was supported by 71.2% of respondents while preventing a company from being delisted from the securities exchange was the least favored advantage with 53.8% of total respondents agreeing to it. A Company's operating costs may include the costs of preparing financial statements for companies with a very large number of shareholders and holding annual general meetings, of which these costs will be reduced by reducing the number of shareholders through a reverse split. Preventing a company from being delisted was least favorite because in Kenya today, companies that are listed at the NSE cannot be delisted for having low share prices.

The greatest disadvantages of a reverse stock split are its ability to signal that the company is in financial problems and that it may be used to eliminate small shareholders; with the two reasons getting 98.1% and 94.2% of respondents respectively. In an efficient market, any information that is conveyed may result into quick adjustments of prices depending on whether the information is good or bad.

When companies decide to reverse split, it may signal all is not well as this process can be viewed as an artificial way of rising prices to attract investors. In the process, the number of shareholders is also reduced and this will mostly affect the small shareholders who will be forced to give up their stocks.

Reduction of shareholders wealth was supported by 73.1% of respondents but they were slightly indifferent on whether it may portray a company lacking future earnings improvement with 51.9% agreeing and 48.1% disagreeing. When there is a reverse split, the number of shares owned reduces while price increases. However, the prices may reduce in future and hence it would mean a reduction in shareholders wealth. A company's future performance would rely on market and economic conditions, strategies employed and management style. Hence the managers were indifferent on whether reverse stock split would actually portray a company lacking future earnings improvement.

Most respondents strongly disagree that companies with low share prices at the NSE should reverse split, this is mainly because reverse splitting is viewed as just a temporary solution and the prices might go back to their minimum low after some period of time. Most disagree that earnings per share of a company increases after reverse split and that advantages of a reverse split outweigh its disadvantages. Majority neither agree nor disagree that there is need to introduce reverse stock splits in Kenya, that reverse splits usually succeed in the long run and that the final decision on whether to reverse split should be made by the directors and not the shareholders.

4.4. Summary Of Findings

From the findings, managers would recommend for a reverse split for two main reasons, to attract institutional investors and increase liquidity while reducing the risk of a stock at the securities exchange. Reverse splitting may also reduce a company's operating costs but this is not a major advantage and delisting from the securities exchange because of low share prices is not applicable at the NSE today.

The greatest disadvantage of a reverse split is that it may signal a company in financial trouble and reduction of total outstanding number of shares may eliminate small shareholders from the company as well as reduce the remaining shareholders wealth. However, this may not necessarily portray that the company is lacking future earnings improvement.

On the other hand, managers would not recommend for companies currently having low share prices at the NSE to reverse split and they believe that the advantages of reverse split do not outweigh its disadvantages. The managers were also slightly indifferent on whether companies which choose to reverse split acquire increased earnings per share and whether they would succeed in the long run. They were however categorical that it is the directors who should make the final decision on whether to reverse split and not the shareholders.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary And Conclusion

In other countries around the world where reverse stock splits are practiced, the value of a company's stock may become relatively low and investors may no longer be interested in purchasing it based on the perception that the low stock price is an indication of the overall health of the company. When this happens, a company issues a reverse stock split to increase the price of its shares. To date, some companies initiating a reverse stock split continue in business. However, this does not mean that reverse splits are necessarily the solution to relatively low stock prices.

In Kenya, most managers would recommend their companies to reverse split so as to shed off possible consideration as a poor investment by encouraging institutional investors into the company. The NSE as a major stakeholder encourages the broader ownership of firms and the opportunity accorded to the general public to have ownership rights over listed enterprises helps to reduce large income inequalities through the sharing of profits made by these enterprises, thereby facilitating the redistribution of wealth. Investors are accorded the opportunity to buy the number of securities that are affordable to them, thereby facilitating the small investor's source of extra income. This is in contrast to other means of investments that require large capital outlays that are not within the reach of small investors be they individuals or institutions. Kenyan managers have however indicated that there is need for introducing rules governing reverse stock splits even though they think the disadvantages of doing so outweigh its advantages.

35
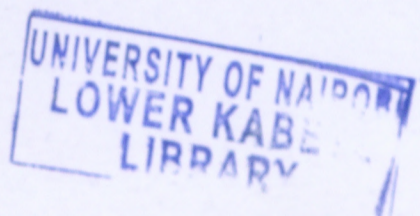
In conclusion, while a reverse split may signal that a company is in trouble and elicit a negative stock market response, it can also aid in investing into the company by attracting new buyers. Kenyan companies would most probably go for a forward split than a reverse split to accommodate the small local investors, but the various companies that would otherwise want to see their stock prices rise or number of outstanding shares drop through a reverse stock split would not achieve this for now because reverse stock splits aren't sanctioned by Kenyan law and for this reason they aren't practiced.

5.2 Recommendation

The first recommendation is that the Capital Markets Authority and the Nairobi Securities Exchange should consider introducing reverse stock splits in Kenya and this can be done by making recommendations for legislations that would allow the process. This would help the NSE develop new policies that would ensure prices at the exchange are maintained above a particular level and companies that go below this may either reverse split, use other means to increase their prices or risk being delisted. Second, companies at the NSE which have had a relatively low share price for a long time should consider pushing for the introduction of reverse stock splits as this is practiced in many countries and can be part of the solution to this problem. Those that would wish to attract institutional investors would also benefit by the introduction of reverse stock splits.

5.3 Limitations Of The Study

One of the major limitations of the study was in collection of data. Getting data from all respondents posed a great challenge mainly because most of the managers were committed and could not reply in good time. This was solved by making follow up calls to the particular companies and sending polite reminders for response.

Another limitation was gathering information on reverse stock splits. This information for literature review was hard to find since most companies around the world engage more in forward splits than in reverse splits.

5.4 Area For Further Research

More in-depth study should be carried out to find out from experts and capital markets analysts on the impact of reverse stock splits if they were to be introduced in Kenya. This feasibility study should involve the managers at the NSE, the Capital Markets Authority and the various investment/securities companies that have been licensed to operate at the NSE. These findings would therefore add to literature on reverse stock splits in Kenya.

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APPENDICES

Appendix I: Table 1. Companies Listed At The NSE.

SECTOR	COMPANY	SECTOR	COMPANY
		CONSTRUCTION	
AGRICULTURAL		31	Athi River Mining
1	Eaagads	32	Bamburi Cement
2	Kakuzi	33	Crown Berger
3	Kapchorua Tea	34	E.A.Cables Ltd
4	Limuru Tea	35	E.A.Portland Cement
5	Rea Vipingo	INSURANCE	
6	Sasini Ltd	36	British-American Investments
7	Williamson Tea	37	CFC Insurance
AUTOMOBILE		38	CIC Insurance
8	Car and General	39	Jubilee Holdings
9	CMC Holdings	40	Kenya Re-Insurance
10	Marshalls (E.A.)	41	Pan Africa Insurance
11	Sameer Africa	42	Centum Investment
BANKING		43	City Trust Ltd
12	Barclays Bank	44	Olympia Capital
13	CFC Stanbic Holdings	45	Trans-Century
14	Diamond Trust Bank	ENERGY	
15	Equity Bank	46	KenGen Ltd
16	Housing Finance Co	47	KenolKobil Ltd
17	Kenya Commercial	48	KPLC

	Bank		
18	National Bank of Kenya	49	Total Kenya
19	NIC Bank	MANUFACTURING	
20	Standard Chartered Bank	50	A.Baumann CO Ltd
21	Co-opBank of Kenya	51	B.O.C Kenya Ltd
COMMER.& SERVICES		52	British American Tobacco
22	Express Ltd	53	Carbacid
23	Hutchings Biemer	54	East African Breweries
			Eveready East Africa
24	Kenya Airways	55	
25	Longhorn Kenya	56	Kenya Orchards
26	Nation Media Group	57	Mumias Sugar
27	Scangroup Ltd	58	Unga Group
28	Standard Group	TELECOMM	
29	TPS Eastern Africa	59	AccessKenya
30	Uchumi Supermarket	60	Safaricom

Source: The Nairobi Securities Exchange

Appendix II: Table 2. Top 20 Companies in total outstanding shares

	COMPANY	SHARES	PRICE BETWEEN MAY - JULY 2012		
			HIGHEST	LOWEST	AVERAGE
1	Safaricom	40,000,000,000	3.95	3.15	3.45
2	Barclays Bank	5,431,536,000	14	12.5	13.15
3	Equity Bank	3,702,777,020	23.25	19.85	21.05
4	Co-operative Bank of Kenya	3,492,369,900	15	10.15	12.88
5	Kenya Commercial Bank	2,950,259,818	24.75	21.75	23.22
6	KenGen Ltd	2,198,361,456	9	7.8	8.43
7	British-American Investments	2,150,000,000	6.15	4.75	5.35
8	KPLC	1,734,637,374	15.6	14	14.97
9	Mumias Sugar	1,530,000,000	7.35	5.05	5.97
10	KenolKobil Ltd	1,471,761,200	16.95	12	14.38
11	East African Breweries	790,774,356	242	200	220.75
12	Centum Investment	604,947,068	16.5	12.25	14.25
13	Kenya Re-Insurance	600,000,000	13.4	8.5	10.96
14	CFC Insurance Holdings	515,270,364	8.3	7.05	7.8
15	Kenya Airways	461,615,483	17.5	12.3	14.48
16	NIC Bank	394,897,562	39	28.5	34.3
17	Bamburi Cement	362,959,275	180	143	154.82
18	Standard Chartered Bank	287,077,133	204	165	182.3
19	National Bank of Kenya	280,000,000	22.5	18.65	19.82
20	Sameer Africa	278,342,393	4.9	3.9	4.34

SOURCE: live.mystocks.co.ke/stock

Appendix III: Table 3. Companies With The Lowest Share Prices

	COMPANY	SHARES	PRICE BETWEEN MAY - JULY 2012		
			HIGHEST	LOWEST	AVERAGE
1	Eveready East Africa	210,000,000	2	1.5	1.72
2	Safaricom	40,000,000,000	3.95	3.15	3.45
3	Olympia Capital Holdings	40,000,000	4	3.15	3.7
4	Express Ltd	35,403,790	4.25	3.4	3.87
5	Sameer Africa	278,342,393	4.9	3.9	4.34
6	AccessKenya	208,084,296	6	4.3	4.89
7	British-American Investments	2,150,000,000	6.15	4.75	5.35
8	Mumias Sugar	1,530,000,000	7.35	5.05	5.97
9	CFC Insurance Holdings	515,270,364	8.3	7.05	7.8
10	KenGen Ltd	2,198,361,456	9	7.8	8.43
11	E.A.Cables Ltd	202,500,000	11.6	10.1	10.75
12	Kenya Re-Insurance	600,000,000	13.4	8.5	10.96
13	Unga Group	75,708,873	13.2	10.1	12
14	Sasini Ltd	228,055,500	13.5	11	12.02
15	Marshalls (E.A.)	14,393,106	13.5	12	12.41
16	Co-operative Bank of Kenya	3,492,369,900	15	10.15	12.88
17	Barclays Bank	5,431,536,000	14	12.5	13.15
18	Centum Investment	604,947,068	16.5	12.25	14.25
19	KenolKobil Ltd	1,471,761,200	16.95	12	14.38
20	Kenya Airways	461,615,483	17.5	12.3	14.48

SOURCE: live.mystocks.co.ke/stock

Appendix IV: Table 4. Chi – Square Distribution Table.

df	$\chi^2_{.995}$	$\chi^2_{.990}$	$\chi^2_{.975}$	$\chi^2_{.950}$	$\chi^2_{.900}$	$\chi^2_{.100}$	$\chi^2_{.050}$	$\chi^2_{.025}$	$\chi^2_{.010}$	$\chi^2_{.005}$
1	0.000	0.000	0.001	0.004	0.016	2.706	3.841	5.024	6.635	7.879
2	0.010	0.020	0.051	0.103	0.211	4.605	5.991	7.378	9.210	10.597
3	0.072	0.115	0.216	0.352	0.584	6.251	7.815	9.348	11.345	12.838
4	0.207	0.297	0.484	0.711	1.064	7.779	9.488	11.143	13.277	14.860
5	0.412	0.554	0.831	1.145	1.610	9.236	11.070	12.833	15.086	16.750
6	0.676	0.872	1.237	1.635	2.204	10.645	12.592	14.449	16.812	18.548
7	0.989	1.239	1.690	2.167	2.833	12.017	14.067	16.013	18.475	20.278
8	1.344	1.646	2.180	2.733	3.490	13.362	15.507	17.535	20.090	21.955
9	1.735	2.088	2.700	3.325	4.168	14.684	16.919	19.023	21.666	23.589
10	2.156	2.558	3.247	3.940	4.865	15.987	18.307	20.483	23.209	25.188
11	2.603	3.053	3.816	4.575	5.578	17.275	19.675	21.920	24.725	26.757
12	3.074	3.571	4.404	5.226	6.304	18.549	21.026	23.337	26.217	28.300
13	3.565	4.107	5.009	5.892	7.042	19.812	22.362	24.736	27.688	29.819
14	4.075	4.660	5.629	6.571	7.790	21.064	23.685	26.119	29.141	31.319
15	4.601	5.229	6.262	7.261	8.547	22.307	24.996	27.488	30.578	32.801
16	5.142	5.812	6.908	7.962	9.312	23.542	26.296	28.845	32.000	34.267
17	5.697	6.408	7.564	8.672	10.085	24.769	27.587	30.191	33.409	35.718
18	6.265	7.015	8.231	9.390	10.865	25.989	28.869	31.526	34.805	37.156
19	6.844	7.633	8.907	10.117	11.651	27.204	30.144	32.852	36.191	38.582
20	7.434	8.260	9.591	10.851	12.443	28.412	31.410	34.170	37.566	39.997
21	8.034	8.897	10.283	11.591	13.240	29.615	32.671	35.479	38.932	41.401
22	8.643	9.542	10.982	12.338	14.041	30.813	33.924	36.781	40.289	42.796
23	9.260	10.196	11.689	13.091	14.848	32.007	35.172	38.076	41.638	44.181
24	9.886	10.856	12.401	13.848	15.659	33.196	36.415	39.364	42.980	45.559
25	10.520	11.524	13.120	14.611	16.473	34.382	37.652	40.646	44.314	46.928
26	11.160	12.198	13.844	15.379	17.292	35.563	38.885	41.923	45.642	48.290
27	11.808	12.879	14.573	16.151	18.114	36.741	40.113	43.195	46.963	49.645
28	12.461	13.565	15.308	16.928	18.939	37.916	41.337	44.461	48.278	50.993
29	13.121	14.256	16.047	17.708	19.768	39.087	42.557	45.722	49.588	52.336
30	13.787	14.953	16.791	18.493	20.599	40.256	43.773	46.979	50.892	53.672
40	20.707	22.164	24.433	26.509	29.051	51.805	55.758	59.342	63.691	66.766
50	27.991	29.707	32.357	34.764	37.689	63.167	67.505	71.420	76.154	79.490
60	35.534	37.485	40.482	43.188	46.459	74.397	79.082	83.298	88.379	91.952
70	43.275	45.442	48.758	51.739	55.329	85.527	90.531	95.023	100.425	104.215
80	51.172	53.540	57.153	60.391	64.278	96.578	101.879	106.629	112.329	116.321
90	59.196	61.754	65.647	69.126	73.291	107.565	113.145	118.136	124.116	128.299
100	67.328	70.065	74.222	77.929	82.358	118.498	124.342	129.561	135.807	140.169

Appendix V: Glossary

Median: The middle number in a sorted list of data.

Mode: The most frequent number in a set of data.

Range: Difference between the largest and smallest value in a set of data.

Quartile: Any of three values that segment sorted data into four equal parts. First quartile (Q1) cuts off the lowest 25% of the data; second quartile (Q2) is the same as the median; and third quartile (Q3) cuts off the highest 25% of the data.

Inter-quartile range: The difference between the 3rd quartile (Q3) and the 1st quartile (Q1); the middle 50% of the data.

Appendix VI: Questionnaire

This questionnaire seeks to collect information on the use of Reverse stock splits. Please provide information frankly and honestly. All information received will be treated confidentially and used for academic purposes only.

SECTION A: Background Information (Optional)

1. Name of the firm ....

2. Name of respondents ....

3. Position Held ....

4. Number of years in Current Position ....

SECTION B: Please indicate whether you agree or disagree to the statements below by selecting either Yes or No using the symbol(X).

1. In your own opinion, would you consider the below as advantages of a reverse stock split?

(a) It would save a company from being delisted from the stock exchange. Yes ( )
No ( )

(b) Increased share price will help attract institutional/corporate investors. Yes ( )
No ( )

(c) Increased prices leads to increased liquidity and reduces risk of a stock. Yes ( )
No ( )

(d) Reduced total outstanding shares reduce company's operating costs. Yes ( )
No ( )

2. In your own opinion, would you consider the below as Disadvantages of a reverse stock split?

(a) It may signal that the company is in financial trouble.   Yes (   )

No (   )

(b) It may be used to eliminate small shareholders.   Yes (   )

No (   )

(c) It reduces shareholder's wealth.   Yes (   )

No (   )

(d) It portrays the company as lacking future earnings improvement.   Yes (   )

No (   )

SECTION C: Please indicate how much you agree or disagree with each of the following statements. Use an X to indicate your answer.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1 Companies with low share prices at the Nairobi securities exchange should reverse split	① 1	② 2	③ 3	④ 4	⑤ 5
2 There is need for introducing rules governing reverse stock splits in Kenya	① 1	② 2	③ 3	④ 4	⑤ 5
3 In case of a reverse split, the Earnings per Share of a company increases	① 1	② 2	③ 3	④ 4	⑤ 5
4 You would recommend for your company to reverse split to attract institutional investors	① 1	② 2	③ 3	④ 4	⑤ 5
5 Reverse stock splits usually succeed in the long run	① 1	② 2	③ 3	④ 4	⑤ 5
6 Directors of a company should make the final decision of reverse splitting and not shareholder:	① 1	② 2	③ 3	④ 4	⑤ 5
7 The advantages of a reverse split outweigh it's disadvantages	① 1	② 2	③ 3	④ 4	⑤ 5

Thank you for your participation.