

**THE EFFECTS OF RIGHTS ISSUE ON SHAREHOLDER WEALTH AT  
THE NAIROBI SECURITIES EXCHANGE**

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## DECLARATION

I, Kevin Kerosi, do attest that this is my bona fide MSc Project which has been presented the University of Nairobi only and no other learning institution worldwide.

Signed  \_\_\_\_\_

Date 8th November 2021

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

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## **DEDICATION**

To my daughter, Tiffany Bochere Kerosi. For my children, brothers and parents

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## LIST OF ABBREVIATIONS

<b>CBK</b>	Central Bank of Kenya
<b>CMA</b>	Capital Markets Authority
<b>CSE</b>	Colombo Stock Exchange
<b>DTB</b>	Diamond Trust Bank
<b>EBIT</b>	Earnings Before Interest and Tax
<b>EPS</b>	Earnings Per share
<b>EASE:</b>	East Africa Securities Exchanges
<b>EVA</b>	Economic Value Added
<b>HFCK</b>	Housing Finance Corporation of Kenya
<b>KCB</b>	Kenya Commercial Bank
<b>KenGen</b>	Kenya Electricity Generating Company
<b>KQ</b>	Kenya Airways
<b>MPS</b>	Market Share Price
<b>MVA</b>	Market Value Added
<b>NACOSTI</b>	The National Commission for Science, Technology and Innovation
<b>NIC</b>	National Industrial Credit
<b>NSE</b>	Nairobi Securities Exchange
<b>P/E</b>	Price to Earnings Ratio
<b>ROE</b>	Return on Equity
<b>RACG</b>	Rose Avenue Consulting Group
<b>Sh.</b>	Kenya Shilling
<b>UON</b>	University of Nairobi
<b>VIF</b>	Variance Inflation factor
<b>WACC</b>	Weighted Average Cost of Debt and Equity Capital

## ABSTRACT

Firms opt to raise additional funds from rights issue so that they have an optimal capital structure, avoid breaching debt covenants and enhance the long-term liquidity of the business. This research sought to establish the effects of rights issue on shareholder wealth of firms listed at the NSE. The study focused on the firm size, dividends and leverage as determinants of shareholder wealth. The focus of the study was between 2008 and 2020 when most companies issued rights at the NSE. This study is an event study which uses a descriptive research design. The objective of the study was to establish the effects of rights issue on shareholders' wealth for NSE listed firms. Different researchers across the globe have found mixed results and hence it was essential to focus on the firms listed at NSE as it was majorly an unexplored research area and also to update with recent data. From the 65 firms listed at the NSE during 2008-2020 there were 12 firms that issued rights. The study sourced data from secondary sources mainly mid-year or end year financial reports published at the CMA, NSE, and the firm websites. From the model developed, data was collected at intervals of 2- year prior and 4-year post rights issue. Shareholder wealth was determined as a function of firm size, leverage and dividends. Statistical analysis was done to determine how the independent and dependant variables behave when there is a unit change in one element. Using the market value added ratios the study found that the mean MVA reduced with rights issue from 19.48417 to 18.8634. From the regression analysis, fixed effects model showed an R squared value (within) of 0.6750 in the pre-issue period and 0.7199 for the post-issue period. This indicated that rights issue strengthened the effect of determinants of shareholder's wealth among listed firms in Kenya. This indicated that firm size, leverage and dividends as determinants of shareholder wealth contributed largely to the changes in MVA of listed firms that issued rights. The study infers that rights issue has a negative effect on shareholder wealth on NSE listed firms. The study recommends that listed firms in Kenya to raise capital from other sources. Further research is recommended on other factors influencing shareholder's wealth other than rights issue; different time period like 5 years; other measures like economic value added as measure of shareholders' wealth; and use of a different methodology in either bull or bear market conditions.



## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

When organisations are in their growth stage or when they are expanding they often require more resources than they can get from internal sources. They are forced to seek other ways of attaining capital, one of which is through rights issue. If a rights issue is successful, it's possible for the organisation to improve its financial standing and also improve the prices of the company shares in the stocks market. A rights issue is not only beneficial to the organisation but to the investors too. It enables the firm and the shareholders to take part in raising the organisations capital. A drawback of a right issue especially to the non-shareholders is that if the issue is extremely popular among buyers, the non-shareholders may not get a chance to buy the rights.

This research will be based on efficient market theory and signalling theory. The efficient market theory was advanced by Fama (1970). As pointed out by Fama (1970) in a perfect market, any changes in the price affected by other market factors should happen at the onset or close after. Michael Spence founded the signalling theory in 1973. Signalling theory helps in pointing out the behaviour between two different persons or organisations who have a difference in the kind of market information they have access to. These theories will inform the study on the way the decision to release information on rights issues by the listed firms would influence the stock prices and shareholder wealth.

Firms strive to ensure there is low leverage and hence try to achieve an optimal capital structure. This is why most organisations will try to raise funds first from their retained earnings, before they go on to debt and thirdly they try to raise capital from equity. For organisations that are close-ended they don't have retained earnings as they distribute all their income and capital gains annually (Derrien, 2015). This is the reason they turn to rights offerings to raise capital. A few reasons why organisations would prefer to raise capital through a rights offering is to avoid the high interest rates from loans and also to look for other means of raising capital when they have challenges raising funds through the traditional means (Eldomiaty, Azzam, El Din, Mustafa, & Mohamed, 2018). Ritter (2011) notes that when there is a rights issue, shareholder wealth after three years after an offering is at 0.80 but this value falls to 0.70 on the fifth year after the issue. Thus, organisations are likely to offer a rights issue when they are at their growth stage or in the process of restructuring. At the offering of the rights issue the market is often at a bullish stage. In

Kenya, firms have actively raised additional funding from rights issue in the recent past actively till date. Closed end firms distribute all their profits hence rights issue is one of the sources of funding.

### **1.1.1 Rights Issue**

A rights offering refers to the chance a firm gives to its shareholders to purchase more shares at prices that are less than the prevailing market price of the shares (Ritter, 2011). The firm gives its current shareholders an offer such that they can buy additional shares at a discounted price compared to the on-going share price in the market (Eckbo & Masulis, 1995). McClure (2018) notes that a rights offering is an offering to the existing shareholders of a firm to purchase a proposed number of shares at a given price and at a pre-defined period.

Rights issue is one of the major sources of equity finance apart from retained earnings and the issue of new shares to the public to subscribe (Derrien, 2015). Firms issue rights to raise additional funds in their local stock exchange or do cross-listing to fund their strategic moves like pay debt, undertake a takeover, expansion, acquire strategic assets among other motives (Koop & Li, 2011). During a rights offering a shareholder can choose to buy the proposed shares by the firm at the discounted price and later denounce the rights by selling them to the market at the current market price or they can also choose not to sell the shares. The value of a right is created when there is a positive margin between the theoretical ex rights price and issue price.

The theoretical issue price is the weighted average of old price and rights price, weighted by the number of shares (Eckbo & Masulis, 1995). Rights issues are measured in terms of share prices within a specified period of time (Daily, Brown & Swanson, 2015). Derrien (2015) measured rights issue in terms of the average price per share based on the difference between the normal share price in relation to the price of the rights issue.

### **1.1.2 Shareholder Wealth**

Shareholder wealth is said to be the current value of the shareholders expected future returns (Frydman, 2012). The expected returns can be in two forms which includes the returns from the sale of shares or in form of dividends. Nikhil (2009) explains that the shareholders' wealth is the cumulative value of the investments made to the firm by the shareholders. On the other hand, Oana (2010) defined shareholder wealth as a public firm's market capitalization. This refers to the

estimation made by the capital market of the value of the firm (Gajendra & Suresha, 2012). Shareholders wealth is the aggregate benefit of the investment that shareholders earn from investing in the company by buying shares (Abira, 2014). This wealth increases when the share prices of the firm rise giving the shareholders a capital gain or a higher dividend payment.

The issue of shareholder wealth has become increasingly important over time. Creating shareholder wealth is among the most important elements in the current marketplace and this has led to significant pressure on management to measure and report the value created (Oana, 2010). Shareholder wealth is the value created when an individual who owns one or more stock or shares in an organization experiences a rise in the price of their shares or a rise in dividend payments (Nganga, 2017). When there is a rise in the share price, then the shareholders' wealth increase due to a capital gain or a rise in the dividend payments given to the shareholders. Abira (2014) notes that shareholders expect to get good returns from their investment which is why the firm does its best to maximise the shareholders returns which also enhances the value of the organisation.

Several approaches have been used in estimating shareholder wealth which include EVA, MVA, ROE, EPS, EBIT. Firstly, EVA estimates whether an organisation operating profit is enough in comparison to the value of used capital. This measure determines the firm's economic profit and it's determined by getting the difference between the Net Operating Profit After Tax and the weighted average cost of Debt and Equity Capital (WACC) and the value of used capital (Oana, 2010). Besides Economic Value Added, another measure of shareholder wealth is the MVA, which is the difference between the firm's market value (Debt and Equity) and the total invested capital (Nikhil, 2009). Other measures of shareholder wealth include ROE, EPS and EBIT. MVA and EVA are value-based metrics which are a good measure of firm performance compared to the other methods like ROE, EPS and EBIT (Oana, 2010).

### **1.1.3 Rights issue and Shareholder Wealth**

Research has shown the existence of a relationship between rights issue and shareholder wealth. Bashir (2013) found an evidence of existence of positive earnings after rights issue in Pakistani. Velayutha (2015) found that investors reacted more favourably to the announcements of rights issues in Sri Lanka. Adam (2016) in his research on how rights issue impacts the prices of stocks of firms listed at East Africa, found that rights issue announcement positively affected share prices of the firms listed on East Africa Securities Exchange.

Normally, existing shareholders are given preference to avoid the erosion of existing shareholder value and normally rights are issued at a discount (Bender & Ward, 2009). During a rights offering, the shares offered to the shareholders are valuable which is important to the investors as they compensate for the decrease in the value of the current shares the shareholders hold. Marsden (2010) noted that when a rights issue is floated the stock price reacts to rights issue announcements negatively.

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

The Capital Markets Act of Kenya (2002) lays down the guidelines on corporate governance and the various rules that govern the sourcing of funds in the Kenyan financial markets. The companies' Act 1985 Cap 486 and Stock Exchange Listing law provide that organisations should issue shares to their current shareholders before they extend the offer to the public. The NSE was registered under the Securities Act, 1954 has the authority of developing securities markets and regulating trading activities. Over the year there have been changes at NSE which have improved the trading of shares and hence listed firms have access to a large amount of potential investors (Nairobi Stock Exchange, 2019).

For a firm to issue rights in Kenya, the firm needs to align and be accountable to regulatory bodies like the CMA, NSE and CBK. This requires prior approval from the shareholders to undertake the rights offering. A firm will issue an explanatory letter to the shareholder, accompanied by a provisional allotment letter on pro rata basis and a copy of the memorandum of information. (Daily Nation, 2004). In Kenya, the first rights issue was issued by the now defunct African Tour and Hotels Firm in 1970. Since then, several firms have reverted to issuance of rights issue as a means of raising capital. Some of the listed firms that have issued rights during the period under review from 2008-2020 were 12 firms that issued rights with HFCK, DTB and KCB issuing twice during the period under review. (Capital Markets Authority, 2019).

Rights issue has been popular in Kenya in the recent past. Some of the firms that had a rights offering in 2007 included NIC Bank, DTB, and Olympia Capital. The rights issued by these three companies saw the firms get a return of sh. 5.04 billion. KCB and DTB also offered a rights issue in 2008 which saw the banks get a total of sh. 11.02 billion. In 2009, no rights issue was offered but in the following year 4 organisations offered their rights that saw the firms get a capital of sh. 26.01bn. The firms that were part of this issue included Kenya Power, Standard Chartered, TPS

East Africa and KCB Group. The year 2011 saw no rights offering but in 2012, five companies issued rights offerings to their shareholders which saw the firms raise sh. 37.6 billion. The firms involved in this issue included Standard Chartered, CFC Stanbic Holdings, NIC Bank, DTB and Kenya Airways. This was a good year as many shareholders responded positively to the offerings and the total capital collected from the issue was 18.7% more than the amount of capital the firms were seeking ([www.nse.co.ke](http://www.nse.co.ke)). In 2013, there were no rights issues but in 2014, DTB and Uchumi Supermarket floated rights issues. Housing finance was the only firm that floated rights issues in 2015 with KenGen and Longhorn floating rights issues in 2016. This study seeks to establish how rights issues affect the shareholder wealth in listed firms in Kenya.

## **1.2 Research Problem**

According to Elliott and Elliot (2011), firms opt to raise additional funds from rights issue to have an optimal capital structure and avoid breaching debt covenants and enhance the long-term liquidity of the business. This firms strive to have a more suitable capital structure (Tsangarakis, 2016). Rights issue affect the P/E ratio of a firm with low P/E signifying that a firm has a high gearing with little prospect of growth in earning or raising additional capital through a rights issue. Current earnings per share and shareholder expectations of prospective growth have an impact of share price across different sectors as these are market-based expectations. Rights issue has an effect on the EPS which signifies growth of the business.

Globally research has been done on rights issue and shareholder wealth. Bashir (2013) studied how a rights offering announcement affected the wealth of shareholders of Pakistani listed firms. According to the research results there were abnormal returns after the announcement but the gain in shareholders wealth wasn't statistically significant. Velayutham (2015) studied the impact of shareholders wealth on the bonuses and rights issues of firms in Sri Lanka. Findings showed that there was a better reaction from the shareholders after a bonus issue especially among small organisations and an increased pre-issuance stock run-up. Adam (2016) studied the effect of rights issue on stock prices of firms listed at East Africa Securities Exchanges (EASE). Findings revealed that an announcement of a rights issue impacts the prices of shares of the EASE listed firms. The study established that a rights issue had no effect on the shareholders' wealth.

Locally, Kithinji, Oluoch and Mugo (2014) studied the impact a rights issue had on the performance of an organisation's share prices with a case of Kenyan listed firms and found a

positive significance change in the prices of stock after the announcement period of the rights offering. Syokau (2014) studied the effect of a rights offering on the firms share price and according to the results, there was statistically significance decline in the MPS and the EPS after the rights offering. Ogada (2014) studied how a rights issue affected the returns on shares of a number of listed firms in the NSE. According to the findings, the market and expected returns were observed to be higher after the rights offering compared to the period before the rights issue. No major study has been undertaken to establish the effect of rights issue on shareholders' wealth based on both capital gains and dividends in Kenya. Such studies have been done in other countries such as Sri Lanka and Pakistan. The question is: what is the effect of rights issue on the shareholder wealth in firms listed in Kenya?

### **1.3 Research Objective**

The research objective of this study was to establish the effects of rights issue on shareholder wealth of firms listed at the NSE.

### **1.4 Value of the Study**

Since the business and financial strategies should be aligned to deliver value to shareholders, management needs to make more informed decisions and this study will help management learn on how to maximize shareholder wealth.

The study outcome will benefit both the institutional and the individual shareholders. The study will enable the shareholders understand the reasons why the market prefers rights issue and how it will affect their wealth. Secondly, it will help CMA, NSE and other regulators in the formulation and administration of regulations governing rights issues and shareholders' wealth.

Moreover, it will help to facilitate a more knowledgeable group of scholars on this topic and future scholars can use the literature and results provided by the study as a reference point if they wish to study the topic further or look into related topics. This study will also provide knowledge on areas that have never been studied before and therefore facilitate more understanding on the effects of rights issue on shareholders' wealth for the NSE listed firms.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

In developing countries, there has been limited studies on the effects of rights issue on shareholder wealth like Kenya. Most of these researches have been primarily in the USA, India, Switzerland and Greece. This chapter reviews related literature on the effects of rights issue on shareholders' wealth. This chapter is organized to have a detailed review of theories related to shareholder wealth, review of the determinants of shareholder wealth, empirical studies and conclusion detailing any gaps to be filled by undertaking this study.

### **2.2 Theoretical Review**

#### **2.2.1 Efficient Market Theory**

The efficient market theory was founded by Fama (1970). As Fama (1970) notes, in a perfect market that is also efficient the expected price effects that are influenced by other factors should happen at the onset or close after. The reason is because there is no delay in the relying of the information and nobody anticipated such changes before the announcement is made. Fama (1970) noted that efficiency in the market information can be classified into weak, semi-strong and strong efficiency. The strong information efficiency indicates that this kind of information is available to everyone in the market and this can be seen in the prices of the shares. The weak information efficiency is the kind of information available from share historical prices while the semi-strong which this study will focus on is the information that is publicly available and is reflected in the prices of the share of the firm.

This theory is not without critics as some scholars have pointed out that one assumption made by this theory is that the available information is perceived the same way by all investors. However, investors analyse information differently and can use different means to value and analyse shares (Malkiel, 2003). For instance, one investor may be seeking for an undervalued stock while another may prefer to invest in stocks which have a high potential for growth. Thus, the assessment of the stock market by these two investors will be totally different. Thus, because of the investors looking at the stocks in the market from a different perspective, it becomes impossible to deduce the value of a stock in an efficient and perfect market. Secondly, the theory assumes that with the same information, the investors attain the same level of profits where it assumes that if once one investor

is able to make a profit then every investor in the market who invests in similar stock will make profits. No market can be perfectly efficient (Crotty, 2011).

In relation to the study, the theory guides the researcher in understanding how information on the rights issue will influence the shareholder wealth before and after the announcement. The theory states that the prices of the stocks are an indication of the information available to the public and to investors which is the basis for this study. Firms listed at the NSE may find their shareholder wealth being affected by the announcement of rights issue. This makes this theory relevant to the study.

### **2.2.2 Signalling Theory**

Michael Spence founded the signalling theory in 1973. Signalling theory helps in explaining how two persons or organisations behave when they access two different types of information. One person who is the sender should decide on how they are going to communicate the information to another person who is the receiver and the person receiving must decide how they interpret this information. According to this theory, organisation managers communicate the firm financial information to investors to reduce information asymmetry and to help investors make informed investment choices (Elton et al, 2009). The theory indicates that information is not always available to all parties and when it is available people get it at different times. Managers are often aware of market information that is relevant, accurate and consistent which is what the managers use to make decisions and this affects the market. For example, when a firm issues a rights offering, it's often a show that the firm has better prospects for the future. Since shareholders want to invest in investments that will give them their maximum returns, they will only invest in firms whose future prospects are strong (Quiry et al, 2011).

Studies that advance the signalling hypothesis base their interpretation on the positive return reaction to split announcements (Grinblatt et al., 2014; McNichols and Dravid, 2010). They postulate a marginal investor will experience positive return due to the announcement. Therefore, splits generally relay the firm prospects in a positive way. Other scholars who have done research in this area note that there is inefficient information to be processed by some investors. Specifically, Barber and Odean (2008), Hou, Peng, and Xiong (2009) and Busse and Green (2012), found out that during corporate announcements, the market can overreact if the announcements



are attractive to the investors. Hence if the this split announcement return led to a temporal market overreaction, the judgmental call by an investor will be false.

Rights issues by firms is information that the managers chose to whom and when they need to release the information to. The information may be released to a few shareholders which may create changes in shareholders' wealth. This theory will inform the study on the way the decision to release information on rights issues by the listed firms would influence the stock prices and shareholder wealth. This makes the theory relevant to the study.

## **2.3 Determinants Shareholder Wealth**

Theoretically, rights issue increases shareholder wealth (Quiry et al, 2011). Increase in share capital is dictated by the changes in the rights issue ratio. With a positive cash flow, companies can run their operations smoothly. Empirically, rights issue has shown mixed results on its effect on shareholder wealth.

### **2.3.1 Firm Size**

Firm size has been under research globally for a long time on how it affects various aspects. In this research, firm size has been used to determine shareholder value. Cui and Mak, (2012); Connolly and Hirschey (2015); Rountree et al (2018); Cheng (2018); Levitas and Chi (2010); and Miller (2014), measured the size of the firm by the value of assets considering the total assets value. Knoeber (2016) suggest that there exists a negative relationship between firm size and shareholder wealth. Connolly and Hirschey (2015) postulates that big organisations have a serious agency problem which is why the wealth of their shareholders' decline in value. Firms that are larger in size also diversify their operations. According to Lang and Stulz (2014) too much diversification can result to weakening of the shareholders' wealth.

### **2.3.2 Leverage**

Financial leverage indicates the debt amount that is part of the firm's capital structure (Mehta, 2014). The financial leverage will rise when the amount of debt increases which results to an increase in risk. This study will measure financial leverage as the liabilities to total assets ratio. Seunghyun Yoon, Jaemin, Seoki (2015) point out that a debt ratio that is on the higher side increases the savings on tax and the shareholder wealth. But a high debt ratio results to a rise in the risk of bankruptcy which affects the shareholders' wealth. Georgeta and Stefan (2014) found

that leverage increases the shareholder wealth. However, Pandey and Prabhavathi (2016) found that leverage negatively influenced shareholders' wealth of automobile industry in India.

### **2.3.3 Dividends**

A profitable firm will communicate its financial stability by paying dividend which is a form of reward to shareholders for their investments in the firm. This encourages potential investors to buy stock in the firm. From year to year, firms tend to consistently pay dividends and increase them over time. This dividend is paid either in cash or by issuing additional stocks on pro rata basis. Azhagaiah and Priya (2018) looked at how dividend policy affected the wealth of the shareholders and found that dividend policy positively influences shareholder's wealth. This is similar to dividend yield that positively related to shareholder wealth. However, Ansar, Butt and Shah (2015) found a negative relationship between dividends and shareholder's wealth.

## **2.4 Empirical Review**

### **2.4.1 Global Studies**

Bashir (2013) studied how an announcement on a rights offering affected that wealth of shareholders who had invested on Pakistani listed firms. The research focus was on how thirty-one rights offerings performed between 2008 and 2011 for listed firm at the Karachi Stock Exchange (KSE). The study sought to determine if investors' returns were affected by access to information that was on the public domain after a rights issue announcement. The study tested if investors were able to gain above normal returns on their investments after the announcement period. The above normal returns were measured using a market model and the test of significance was a t-test. According to the results, there were positive above normal returns observed after the announcement date but the shareholders wealth gain was found to be statistically insignificant. This study is significance to this research in that it has focused on rights issue and shareholder wealth of listed firms. However, the study used t-statistics to test the significance while the current study will make use of f-statistics to test the significance of the model. The study used a 4-year period while this thesis covers the period from 2008-2020. The study was done on firms listed at Pakistan Stock Exchange while this study will use firms listed at the NSE.

Velayutham (2015) studied how shareholders wealth was affected by a bonus and rights issue focusing on Sri Lanka firms. The project focused on how the share prices reacted to the bonus and

rights issue of listed firms in the Colombo Stock Exchange (CSE). This study focused on the period between 2008 and 2013. The findings indicated that there was negative reaction to rights issue and positive reaction to bonus issue announcements. According to this cross-sectional study, the market reaction was more positive to rights offerings that were for small organisations, that had low profits, that did not have concentrated ownership, had lower pre-issuance stock run-up, had higher risk and a lower issue in size. The results further indicated that there was a better reaction from investors when the bonus offering was from smaller organisations and had a higher pre-issuance stock run-up. This research is relevant to the current study in that it is based on similar variables relating to rights issue and shareholder wealth. However, the study used firms listed at Colombo Stock Exchange while the current study is based on NSE. Further, the study was based on 5-year period in contrast to the 12-year period for the current study. The study used cross-sectional data while the current study used panel data.

Adam (2016) studied the effect of rights issue on stock prices of firms listed at EASE. The study adopted a descriptive research design targeting firms listed on EASE. Data used for the study was mainly secondary and was gathered using a data collection sheet. The analysis was done using event study methodology. Findings of the study revealed that rights issue announcement affects share prices of the firms listed on EASE. The study further established that a rights issue had no effect on the shareholders' wealth. This study used event study methodology which is adopted by the current study. The study also used listed firms similar to the current study. However, the study was based on the effect of rights issue on stock prices other than shareholder's wealth.

#### **2.4.2 Local studies**

Kithinji, Oluoch and Mugo (2014) studied how a rights offering impacted the performance of share prices for NSE listed firms. The emphasis of this study was on how a rights issue affected the firms trading before and after the offering. The study targeted all the listed Kenya firms on the NSE as at 31st December 2012. There were 62 firms which aggregated the NSE share index at the time of the study which had also given a rights issue between 2007 and 2012. The data was gathered using a data gathering sheet and the secondary data used include trade volumes, closing share prices and market indices for a 20-day period before and after rights offering announcements. The findings inferred to a positive significance change in the share prices during the period after a rights issue announcement. This study used rights issue as the independent variable similar to the

current study. However, the study used firms' share performance as the dependent variable with the current study using shareholder's wealth. This study analyses 2008-2020 period as the other study above did analyse between 2007-2012 period.

Syokau (2014) studied how a rights issue affects the earnings per share of Kenyan listed firms. The project focused on the KQ rights issue of 2012. The findings revealed that in line with past empirically results among the rights offerings in developed markets, the EPS declined significantly by 23% and there was also a decline in the MPS after the rights offering. The case for KQ was even more severe decline due to the economic and the political environment existing in the country then and the fact that the national carrier was focused on an ambitious expansion plan after the rights issue. This study used rights issue as the independent variable same as the current study. However, earning per share was used as the dependent variable while the current study used shareholder wealth as measured by market value added. The study used KQ as a case while the current study involved all NSE listed firms that issued rights.

Ogada (2014) studied how a rights issue affected the returns on shares of firms that were listed in the NSE. The research was based on an event method of study and tried to determine the impact of a rights issue information on the share returns. The study targeted 18 Kenyan firms that were listed in the NSE. The data gathered was from 2005 to 2012 and the study also used data from the share prices observed one month before and one month after the rights issue announcement. The significance level between the returns between two periods was tested using t-test and the results revealed that the market return is a strong indicator of the returns in stock which was enough proof that this model was valid. The findings also indicated that the market and expected returns were higher after than before the rights offering. The study also indicated that the abnormal returns were not different before and after the offering showing that information on a rights issue doesn't impact the returns of stocks and this may be due to market efficiency. The study was based on rights issue and stock returns while this study was based on rights issue and shareholder wealth. This study was a seven-year study while this study was based on a 12-year period. T-statistics were used for significance test while the current study used f-statistics.

## 2.5 Conceptual Framework

Independent Variable

Dependent variable

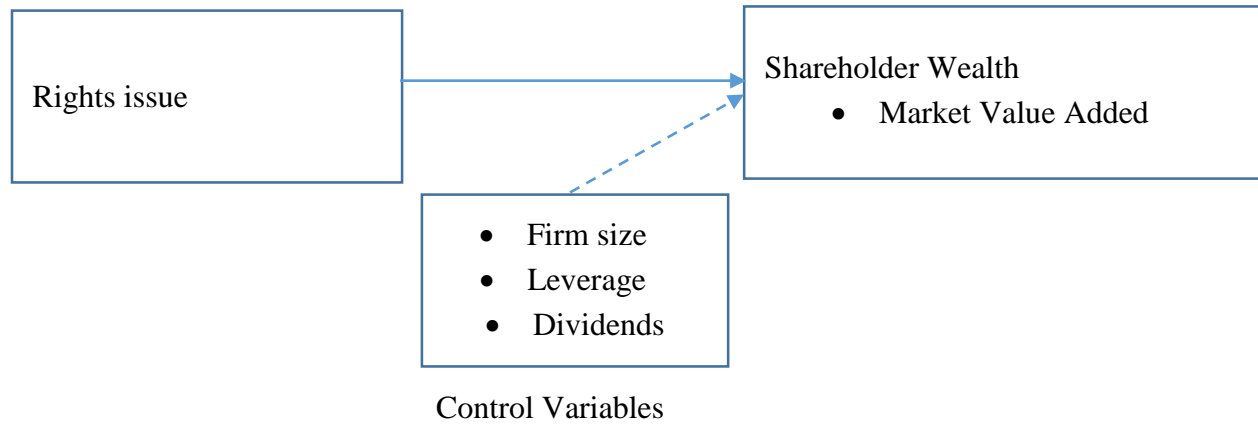


Figure 2.1: Conceptual Framework

## 2.5 Summary of Literature Review

This study seeks to establish the effects of rights issue on shareholder wealth for NSE listed firms. Literature on rights issues has been reviewed both theoretically and empirically. The literature is based on the rights issues and determinants of shareholder value. The empirical studies have displayed conflicting results with some showing positive while others show negative or no relationship. The local studies have used different variables and measures that warrants the need for a study on the effect of rights issue on shareholder wealth among listed firms in Kenya.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section lays down the approach taken for the research. The study sought to determine the effects of rights issue on shareholders' wealth based on an event study methodology.

### **3.2 Research Design**

Cooper and Schindler (2012) note that a research design is the method that a researcher decides to use to bring together the different research components such that they can be understood in a logic and coherent way. This study was descriptive which means that the research described the subject's behaviour without bias or manipulation (Christensen, Johnson & Turner, 2011). The researcher preferred to use this design since the data on the shareholder's wealth was based on the observations made before, during and after the rights announcement. The researcher was careful not to influence the subject's behavior and to observe the returns on the shareholder's wealth in the natural environment without manipulation.

### **3.3 Population of the Study**

Listed firms that raised equity via rights issues between 2008 and 2020 were targeted. The list of the firms was sourced from the NSE. The years 2008 and 2020 had the highest numerical representation, though there is a reasonably even spread across the years. The study targeted listed firms between 2008 and 2020. According to NSE (2021), there were 65 firms listed between 2008 and 2020. The period between 2008 and 2020 saw twelve listed firms issue rights issue (Appendix I). The period 2008-2020 was chosen because this period experienced a very high number of rights issues at the NSE.

### **3.4 Data Collection**

The data collected for this study from secondary sources. The data was collected from the NSE, CMA, company websites and other sources. The data on the shareholder wealth was gathered from the annual reports of individual firms. Market value added before and after rights issues was obtained to show the changes in shareholder wealth due to the rights issue. Average cross-sectional data was used for analysis. The researcher sought research approval from NACOSTI, UON among other stakeholders to facilitate the data collection exercise at the NSE.

### **3.5 Diagnostic Tests**

Diagnostic tests on the data and models were performed. The diagnostics tests done for the study were multicollinearity, normality, heteroscedasticity, hausman test for endogeneity and test for significance.

#### **3.5.1 Multicollinearity Test**

In Burns & Burns (2018) when more than one independent variable displays an exact or approximate straight line relationship, it is presumed that multicollinearity has occurred. Therefore, when the independent variables are related to a big margin there is a linear relationship. Variance Inflation factor (VIF) analysis to establish the degree of multicollinearity among the variables was carried out.

#### **3.5.2 Normality Test**

Normality test is a test for assumption that the residual of the response is normally distributed around the mean. The Shapiro-wilk test for normality was adopted for this study. The null hypothesis is that the residuals are normally distributed. If the p-value is above 0.05 we fail to reject the null hypothesis. Where the p-value is less than 0.05 the researcher rejects the null hypothesis.

#### **3.5.3 Heteroskedasticity Test**

Heteroscedasticity test was done to establish whether the error term variance is constant over time. Homoscedasticity means a study having the same scatter. One basic assumption of ordinary least squares (OLS) is that over time the error term should vary. The null hypothesis is that the error term is constant over time. Breusch Pagan Test was done to check for heteroscedasticity.

#### **3.5.4 Hausman Test for Endogeneity**

In regression models, the Hausman specification test detects the predictor variables and if it is endogenous. This helps the scholar choose between the fixed effects and the random effects model to be adopted in the study. The test further tries to show the extended relationship between random effects and the regressor. The null hypothesis is that the random effect model is preferred and the alternative hypothesis is the fixed effects model.

### 3.5.5 Test for Significance

ANOVA was used to test significance of the variables and model. Anova used the F-statistics and p-value to test the significance of the model.

## 3.6 Data Analysis

This study analysed the gathered data using event study methodology. This type of methodology is econometric in nature and it helps measure and interpret the effect of an event on the financial performance (Konchitkchi, 2011). This event study was concerned with the effect of a right issue event on corporations. This technique is perfect for this study as the study tries to figure out how the happening of an event which is the rights issue affects the shareholders' wealth based on market value added.

Market value-added ratios as a measure of shareholder wealth were calculated and compared two (2) years pre-issue and four (4) years post issue. The event period was chosen because the first firm that issued rights issue within the period did it in 2010 with the last doing it in 2016. This means that the first firm were having a pre-issue period of 2008-2010 with the last firm having a post-issue period of 2016-2020. This covers the whole period (2008-2020) for which the researcher bases his study.

The change in the ratios enabled the researcher to establish the effect of rights issue on shareholder wealth of listed firms. This was done for the control variables to show their controlling effect on the relationship. Data analysis was done through use of Stata software. Descriptive statistics involved mean, standard deviation, minimum and maximum. The study used a panel linear regression model since the data collected used time series and cross-sectional data. The model took the form of:

$$Y = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}$$

Where:  $Y_{it}$  = Shareholder wealth as measured by MVA of firm  $i$  at time  $t$

$X_{1it}$  = Firm size as measured by log of assets  $i$  at time  $t$

$X_{2it}$  = Leverage as measured by leverage ratio of firm  $i$  at time  $t$

$X_{3it}$  = Dividends as measured by dividend pay-out ratio of firm  $i$  at time  $t$

$\epsilon_{it}$  = Composite error term (other factors)

$\alpha$  = Constant term

$\beta_1$ - $\beta_3$  = Coefficients of the variables



## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION OF FINDINGS

#### 4.1 Introduction

This chapter has analyzed data collected from listed companies at NSE which issued rights and its finding presented below. Discussions on the findings are also included.

#### 4.2 Descriptive Statistics

This section describes the data in form of mean, minimum, maximum and standard deviation. The statistics are compared 2 years before rights issue and 4 years post issue.

*Table 4.1: Descriptive Statistics before Rights Issue*

Variable	Obs	Mean	Std. Dev.	Min	Max
MVA	24	14.27047	3.163516	6.3184	17.7739
FS	24	17.5534	1.706798	13.4435	19.3378
LV	24	.821025	1.418616	.0302	5.3085
DPS	24	2.2925	3.490434	.15	13.5

From the analysis on Table 4.1 above, before rights issue, Market Value Added (MVA) show a mean of 14.2705 with a standard deviation of 3.1635. The minimum MVA in the pre-rights issue period was 6.3184 with a maximum of 17.7739.

Firm size (FS) displayed a mean log of assets of 17.5534 with a standard deviation of 1.7068. Firm size showed a maximum log of 19.3378 with a minimum of 13.4435. Leverage (LV) showed a mean ratio of 0.8210 with a standard deviation of 1.4186. In the pre-issue period, the firms showed a maximum leverage ratio of 5.3085 and a minimum ratio of 0.0302. The listed firms showed a mean dividend per share (DPS) of 2.2925 in the pre-issue period with a standard deviation of 3.4904. The firms displayed a minimum dividend per share of 0.15 and a maximum dividend per share of 13.5.

MVA and DPS showed high standard deviation which means that the average MVA and DPS of the listed firms that had rights issues varied greatly among the listed firms in the pre-rights issue period.

Table 4.2: Descriptive Statistics After Rights Issue

Variable	Obs	Mean	Std. Dev.	Min	Max
MVA	48	14.86105	2.824687	6.5543	18.2811
FS	48	18.14592	1.714538	14.4354	19.8388
LV	48	.4353146	2.343861	-12.2877	5.2013
DPS	48	2.499375	4.70598	0	20

From the descriptive statistics, after rights issue, MVA displayed a mean of 14.8610 with a standard deviation of 2.8247. The minimum MVA in the post-rights issue period was 6.5543 with a maximum of 18.2811.

Firm size (FS) showed a mean log of assets of 18.1459 with a standard deviation of 1.7145. Firm size (FS) showed a maximum log of 19.8388 with a minimum of 14.4354. Leverage (LV) showed a mean ratio of 0.4353 with a standard deviation of 2.3438. In the post-issue period, the firms showed a maximum leverage ratio of 5.2013 and a minimum ratio of -12.2877. The listed firms had a mean dividend per share of 2.4993 in the post-issue period with a standard deviation of 4.7059. The firms displayed a minimum dividend per share of 0 and a maximum dividend per share of 20.

Dividend per share of listed firms showed the highest variation in the post-issue period. Market value added and leverage also showed a high variation with firm size having the lowest variation for the listed firms in the post-issue period.

### 4.3 Diagnostic Tests

The researcher did diagnostic tests on the data and models. Diagnostics tests done related to multicollinearity, normality, heteroscedasticity and hausman test for endogeneity.

Table 4.3: Multicollinearity Test

Variable	VIF	1/VIF
FS	1.05	0.948015
DPS	1.05	0.955629
LV	1.02	0.982803
Mean VIF	1.04	

The data collected for the study was tested for multicollinearity by using the VIF. From the analysis, the VIF values were less than 2 hence the variance of the variables was inflated at a very low level. The tolerance statistics are also close to 95%, which means that there are no multicollinearity issues in the data for the firm size, leverage and dividend per share.

Table 4.4: Normality Testing

Variable	Obs	W	V	z	Prob>z
MVA	84	0.85287	10.513	5.169	0.00000
FS	84	0.84451	11.110	5.290	0.00000
LV	84	0.54108	32.789	7.668	0.00000
DPS	84	0.57393	30.442	7.505	0.00000

The Shapiro-Wilk test for normality was analysed. The null hypothesis for the study is that the population is normally distributed. If the p-value is less than the chosen alpha level, then the population doesn't have a normal distribution and hence the null hypothesis is rejected. From table 4.4, all the study variables (FS, LV, DPS) displayed a p-value which was less than the critical 0.05 value. Based on the analysis, we reject the null hypothesis and assume the alternative hypothesis as data are not normally distributed.

Figure 4.2: Heteroskedasticity Test

```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of Y

chi2(1)      =      0.02
Prob > chi2  =      0.8755

```

From the findings on figure 4.2, the p-value of Breusch-Pagan (0.8755) was more than 0.05 which means that the regression has not violated the assumption of homoscedasticity. Therefore, we presume that heteroscedasticity is not present in our data.

Table 4.5: Hausman Test for Endogeneity

	---- Coefficients ----			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	random	fixed	Difference	S.E.
FS	.6943157	.5084868	.1858288	.
LV	.0409501	.0119653	.0289848	.1300579
DPS	.2192503	.046796	.1724542	.0404274

b = consistent under Ho and Ha; obtained from regress  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(3) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
 = 10.98  
 Prob>chi2 = 0.0118  
 (V\_b-V\_B is not positive definite)

Predictor model variables were tested through hausman test to help the scholar choose between fixed effects model and random effects model. The null hypothesis is that the preferred model is random effects. The alternate hypothesis is that the model is fixed effects. From table 4.5, the p-value from the hausman test is 0.0118 is less than 0.05 significant level. Consequently, from the analysis above, the null hypothesis is rejected and the study adopts the random effects model.

#### 4.4 Regression Analysis

The regression analysis was done before and after the rights issue to establish whether the issue of rights had any effect on the coefficients and effects of the determinants of shareholder wealth.

#### 4.4.1 Regression Analysis Before Rights Issue

Table 4.6: Regression Before Rights Issue

```

Fixed-effects (within) regression          Number of obs   =          24
Group variable: CD                       Number of groups =          12

R-sq:                                     Obs per group:
  within = 0.6750                          min =           2
  between = 0.5521                         avg =           2.0
  overall = 0.5448                          max =           2

corr(u_i, Xb) = -0.8061                    F(3,9)          =          8.49
                                           Prob > F        =          0.0054

```

MVA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
FS	-.2144195	.122131	-3.39	0.003	-.4691734 .0403502	
LV	-.8706012	.294801	-2.95	0.007	-1.485542 -.2556695	
DPS	.3747123	.1655077	2.26	0.034	.0294733 .7199586	
_cons	19.48417	4.61336	4.22	0.000	9.860801 29.10740	
sigma_u	5.0196348					
sigma_e	.54940805					
rho	.98816212	(fraction of variance due to u_i)				

F test that all u\_i=0: F(11, 9) = 45.44 Prob > F = 0.0000

From table 4.6, the model after rights issue shows a  $\text{corr}(u_i, Xb)$  of -0.8061, an indication that the fixed effects are strongly correlated with the explanatory variables, so the researcher did well by controlling for the fixed effects. Hence the fixed effects model fitted the study. This was supported by the F-statistics which are significant. The fixed effects model is a within regressor model hence the interpretation is based on the R squared within the variables. The data showed an R squared value (within) of 0.6750. This shows that 67.5% of the change in MVA was due to changes in firm size, leverage and dividends at 95% confidence interval. The balance of 32.5% change in MVA is accounted by other factors not considered in this study.

The table 4.6 also showed that holding firm size, leverage and dividends in the period before rights to a constant zero, MVA of NSE listed firms will be 19.48417. A unit increase in firm size in the period would decrease MVA of the listed firms by 0.2144. Consequently, a unit increase in leverage ratio would decrease MVA by 0.8706. Comparably, a unit increase in dividend per share

would lead to an increase in MVA by 0.3747. All the variables showed a significant effect on the MVA for the NSE listed firms in the pre-issue period.

#### 4.4.2 Regression Analysis After Rights Issue

Table 4.7: Regression Before Rights Issue

```

Fixed-effects (within) regression      Number of obs   =      48
Group variable: CD                   Number of groups =      12

R-sq:                                Obs per group:
  within = 0.7199                    min =          4
  between = 0.6611                   avg =         4.0
  overall = 0.6411                   max =          4

corr(u_i, Xb) = -0.6817              F(3,33)        =      4.22
                                      Prob > F        =      0.0124

```

MVA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
FS	-.2951883	.0703165	-4.19	0.000	-.4368929	-.1533126
LV	-.3238496	.0978245	-3.31	0.002	-.5210793	-.1265307
DPS	-.3488051	.1081693	-3.22	0.002	-.5669326	.1306718
_cons	18.8634	6.684138	2.82	0.008	5.383572	30.09990
sigma_u	3.177489					
sigma_e	.53088556					
rho	.97284332	(fraction of variance due to u_i)				

F test that all u\_i=0: F(11, 33) = 73.27 Prob > F = 0.0000

From table 4.7, the post issue model shows a corr(u\_i, Xb) of -0.6817, an indication that the fixed effects are strongly correlated with the explanatory variables, so the researcher did well by controlling for the fixed effects. Hence the fixed effects model fitted the study. This was supported by the F-statistics which are significant. The findings showed an R squared value (within) of 0.7199. This shows that 71.9% of the change in MVA in the post issue was due to changes in firm size, leverage and dividends at 95% confidence interval. The remaining 28.1% change in MVA influenced by other factors not analysed in this study.

The findings from the table also show that holding firm size, leverage and dividends in the period after rights to a constant zero, MVA of listed firms would stand at 18.8634. The table also shows that a unit increase in firm size in the period would decrease MVA of the listed firms by 0.2952.

A unit increase in leverage ratio would decrease MVA by 0.3238 in the period. Similarly, a unit increase in dividend per share would lead to a decrease in MVA by 0.3488. All the variables showed a significant effect on the MVA on the NSE listed firms in the post-issue period.

#### **4.6 Discussion of Findings**

The study found that rights issue by listed firms led to reduction in their average MVA for the period between 2008 and 2020. This means that rights issue by listed firms reduces the shareholders' wealth through market value added. The findings concurred with Adam (2016) and Marsden (2010) who found a negative change in shareholder wealth with rights issue. However, they differed with those of Bashir (2013) and Velayutha (2015) who found a positive relationship between rights issue and shareholders' wealth.

The study found that firm size negatively affected shareholders' wealth as measured by MVA. This shows that increased firm size in terms of assets leads to reduction in market value added. The findings concurred with those of Knoeber (2016); and Connolly and Hirschey (2015) who found that firm size led to reduced shareholders' wealth.

Leverage showed a negative effect on market value added. This means that leverage negatively affects shareholders' wealth of listed firms that issued rights in Kenya. The findings concurred with those of Pandey and Prabhavathi (2016) who found that leverage and shareholders' wealth related negatively. However, the findings differed with those of Seunghyun Yoon, Jaemin, Seoki (2015); and Georgeta and Stefan (2014) who found that increased leverage ratio led to increased shareholders' wealth.

From the regression analysis, the post-issue dividends per share showed a negative coefficient with market value added. This shows that dividends decrease shareholders' wealth after rights issue by listed firms in Kenya. The findings concur with those of Ansar, Butt and Shah (2015) who found a negative effect. However, the findings differed with those of Azhagaiah and Priya (2018) who found that dividends affected shareholder wealth positively.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The chapter was based on the objective of the study. The summary is based on the analyzed data observations. The shortcomings of the study are listed and recommendations for additional scholarly research is proposed.

#### 5.2 Summary of Findings

This research sought to establish the effects of rights issue on shareholder wealth of firms listed at the NSE. The objective was achieved by undertaking a descriptive study based on 65 firms listed between 2008 and 2020. The 12 firms that had rights issue in the period between 2008 and 2020 were reviewed. Average panel secondary data sought from the CMA NSE and company websites was utilized. This study analysed the gathered data using event study methodology. The analysis was based on the occurrence of an event (rights issue). Market value-added ratios as a measure of shareholder wealth was calculated and compared two (2) years before and four (4) years after the rights issue. The change in the ratios enabled the researcher to establish the effect of rights issue on shareholder wealth of listed firms in Kenya. The study used a panel linear regression model.

From the descriptive statistics, MVA of the listed firms that issued rights issue in Kenya displayed a mean of 14.2705 before rights issue with a mean of 14.8610 after the rights issue. This shows that rights issue by listed firms in Kenya led to reduction in their average MVA. The standard deviation of MVA in the pre-issue period was 3.1635 but changed to 2.8247 after the rights issue. This is an indication that listed firms that issued rights in Kenya experienced reduced dispersion of MVA after issuing rights.

Firm size displayed a mean log of assets of 17.5534 before rights issue and 18.1459 after issue of rights. This shows that the firm size increased after rights issue. The variation in firm size increased standard deviation from 1.7067 to 1.7145. The average leverage ratio was 0.8210 before rights issue and reduced to 0.4353 after rights issue. This shows that issue of rights led to reduction in the average leverage of listed firms as a determinant of shareholder wealth. The rights issue led to increased dispersion in the leverage ratio among the listed firms. In the pre-issue period, the listed firms showed a mean DPS of 2.2925 and 2.4993 in the post-issue period. This shows that rights



issue led to increased dividend per share among listed firms that's issued rights in Kenya. The dispersion also increased after the rights issue as shown by increased standard deviation from 3.4904 to 4.7059.

From the regression analysis, fixed effects model showed an R squared value (within) of 0.6750 in the pre-issue period and 0.7199 for the post-issue period. This shows that rights issue by listed firms strengthened the effect of determinants of shareholder's wealth among listed firms in Kenya. This indicated that firm size, leverage and dividends as determinants of shareholder wealth contributed largely to the changes in MVA of listed firms that issued rights.

The findings also showed that the change in MVA, when the determinants of shareholder wealth are held constant, reduced after rights issue from 19.48417 to 18.8634. This shows that the rights issue improved the effect of the determinants on shareholder wealth as measured by MVA. The effect of decrease in MVA due to unit change in firm size reduced after rights issue from 0.2144 to 0.2952 in the post-issue period. However, the decrease in MVA due to unit increase in leverage ratio reduced after rights issue from a coefficient of 0.8706 in the pre-issues period to 0.3238 in the post-issue period. Similarly, the unit increase in dividend per share would lead to an increase in MVA by 0.3747 in the pre-issue period and reduction of 0.3488 in the post-issue period. The findings showed that firm size and leverage led to decreased MVA while dividends per share increased the MVA of the listed firms after rights issue. The significance of the determinants also improved after the rights issue showing a negative effect of rights issue on shareholder's wealth and its determinants among listed firms in Kenya.

### **5.3 Conclusions**

The study concludes that rights issue has a negative effect on the shareholder's wealth of listed firms in Kenya for the period between 2008 and 2020. This is brought about by the effects on the key determinants of shareholder wealth like firm size, leverage and dividends. The determinants show a negative effect on market value added apart from dividends which positively affect the shareholders' value of the firms.

The study further concludes that firm size has a negative effect on shareholder's wealth of listed firms that issued rights between 2008 and 2020 in Kenya. The significance of firm size of listed firms as a determinant of shareholder wealth improves with rights issue. This means that firms that

issue rights experience reduction in shareholder wealth due to significant negative effect of firm assets on market value added.

The leverage of listed firms in Kenya that issued rights between 2008 and 2020 has a significant effect on shareholder's wealth. The study concludes that leverage negatively affects the shareholder's wealth of listed firms in Kenya that issued rights between 2008 and 2020.

The study concludes that dividend has a significant effect on shareholder's wealth of listed firms that issued rights between 2008 and 2020. Dividends negatively affect shareholder's wealth of listed firms in Kenya that issued rights between 2008 and 2020. The negative effect of dividends of the firms after issue of rights shows that shareholders wealth reduces with dividends after rights issue.

#### **5.4 Policy Recommendations**

The study advocates that listed firms in Kenya should consider key factors like firm size, leverage and dividends in making a decision on whether to issue rights. This is due to the finding that shareholder's wealth reduces with the rights issue among the listed firms in Kenya.

Firm size showed a negative effect on the shareholders' wealth in the post-issue period. This leads to the recommendation that listed firms in Kenya check their assets size before issuing rights as it would lead to negative effect on the shareholder's wealth. Leverage of the listed firms was found to negatively affect the shareholder wealth of listed firms that issued rights in Kenya. The study advises that NSE listed firms should reduce their leverage before issuing rights. This would reduce the negative effect of leverage hence lead to increased shareholders' wealth.

The findings further showed that dividends negatively influenced shareholders' wealth of listed firms that issued rights. This study recommends that in order to enhance the shareholders' wealth, listed firms should issue a reduced level of dividends to their shareholders in addition to issue of rights.

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

The major constraint with this study is variables of the study. The study was limited to the variables of the study of rights issue and shareholders' wealth. They related to rights issue and shareholder's

wealth. Should different variables be used in the study, analysis might bring out different outcomes and recommendations. This was overcome by recommending further research.

The period of research (2008-2020) also limited the study. The period may accumulate a lot of non-current data which may reduce the reliability of the data. This calls for use of a shorter period based on the current data for analysis. Hence a study maybe of 5-year period will yield different results from this study.

The study measured shareholder's wealth in terms of market value added which may have its limitations. This may not give a deeper understanding on the effect of rights on shareholder's wealth measures. This is because there are various measures of shareholders' wealth which may be affected differently by rights issue.

The study was limited by the methodology adopted. The researcher adopted an event methodology which may give different results where a different model is adopted. The event methodology which was based on the years assumed the monthly effect of the event (rights issue) which may not give a clear picture on its effect on the shareholder's wealth.

## **5.6 Recommendations for Future Studies**

The study sought to establish the effects of rights issue on shareholder wealth of firms of listed at the NSE. The findings showed a significant effect of rights issue on shareholder wealth of firms of listed at the NSE. The research found that the study was limited by the variables used. They included rights issue and shareholder wealth. This creates a need to understand the relationship between other variables not studied in this research. Hence, the researcher recommends that other researchers look at other factors influencing shareholder's wealth other than rights issue.

The research was limited by the period of research. The research was based on the period between 2008 and 2020. This means that the researcher utilizes a lot of data which may be historical. To overcome this limitation the researcher recommends further research based on different period like 5 years for comparison of results.

The study was limited by the measures used on shareholder wealth. Shareholder wealth was measured using MVA. With other measures existing the use of MVA only does not seem sufficient. The study recommends the use of other measures like economic value added as measure of shareholders' wealth.

The study was limited by the event methodology which the researcher adopted. This may give differing findings on the rights issue and shareholder wealth. To overcome this limitation, the researcher recommends research on rights issue and shareholder wealth based on a different methodology. This may include the use of dummy variables to represent rights issue.

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## APPENDICES

### Appendix I: Listed firms between 2008 and 2020

S/N	Firm	Year of Rights Issue
1	Kenya Power	2010
2	TPS East Africa	2010
3	KCB Group	2010
4	CFC Stanbic	2012
5	Kenya Airways	2012
6	NIC Bank	2012
7	Standard Chartered Bank	2012
8	DTB	2014
9	Uchumi Supermarket	2014
10	Housing Finance	2015
11	KenGen	2016
12	Longhorn Publishers Ltd	2016

## Appendix II: Data Collection Schedule

Year	Total Assets	Total debt	Dividend pay-out	Market share price	Number of Shares	Total Equity	Long-term debt
	Kshs.	Kshs.	Kshs.	Kshs.		Kshs.	Kshs.
-2							
-1							
Issue year							
+1							
+2							
+3							
+4							

### Appendix III: Secondary Data

Firm	Year	Total Assets	Total debt	Dividend per share	Market share price	Number of Shares	Total Equity
		Kshs. 000	Kshs. 000	Kshs.	Kshs.	'000	Kshs. 000
Kenya Power	2008	59,812,122	11,368,208	4	14	172,901,892	23,881,922
	2009	70,648,425	11,545,014	8	14	179,128,000	26,848,063
	2010	85,025,890	13,113,434	8	16	173,463,737	28,740,877
	2011	121,171,515	24,521,303	0	17	259,281,200	39,606,376
	2012	134,131,983	27,762,313	0	14	173,463,773	43,511,553
	2013	177,157,755	39,907,832	0	14	181,869,546	47,405,675
	2014	220,926,514	53,141,442	1	13	195,146,704	54,743,822
TPS	2008	6,506,996	1,052,754	1	71	105,865,000	3,750,925
	2009	6,996,196	1,206,809	1	67	105,864,742	4,064,390
	2010	3,960,393	1,625,281	1	55	106,000,000	3,954,633
	2011	4,003,735	2,126,066	1	40	192,000,000	3,989,269
	2012	15,655,893	771,920	1	52	176,283,911	7,927,235
	2013	16,136,097	889,757	1	44	182,174,108	10,556,075
	2014	13,640,978	1,084,493	1	34	200,000,000	10,412,489
Kenya Commercial Bank	2008	191,211,586	4,185,801	1	12	4,191,000,000	21,086,952
	2009	168,223,215	6,668,388	1	13	2,218,000,000	22,397,915
	2010	223,024,556	11,056,967	1	17	2,597,000,000	40,876,445
	2011	330,716,159	8,525,000	2	30	10,981,000,000	44,365,027
	2012	367,379,285	8,923,312	2	47	12,204,000,000	53,339,559
	2013	322,684,854	7,073,182	2	57	2,984,000,000	61,763,039
	2014	376,969,401	11,610,293	2	44	3,025,000,000	72,167,339

CFC Stanbic	2010	140,080,202	7,066,362	1	46	273,684,211	24,768,615
	2011	150,171,015	7,086,285	1	39	273,684,211	19,329,127
	2012	143,212,155	6,697,731	1	60	395,321,638	27,240,888
	2013	180,511,797	5,847,752	2	105	395,321,638	32,425,791
	2014	180,998,985	6,513,417	5	114	395,322,000	36,895,193
	2015	208,451,915	6,482,063	6	94	395,322,000	18,236,650
	2016	214,682,729	3,986,138	5	63	395,322,000	18,234,751
Kenya Airways	2010	75,365,000	23,386,000	1	41	462,000,000	32,369,000
	2011	78,712,000	21,750,000	1	20	462,000,000	33,360,000
	2012	77,432,000	19,154,000	0	11	462,000,000	30,653,000
	2013	122,696,000	31,421,000	0	13	1,238,000,000	31,209,000
	2014	148,657,000	50,120,000	0	9	1,496,469,000	28,229,000
	2015	187,654,000	104,175,000	0	5	1,496,469,000	-8,478,000
	2016	165,112,000	113,216,000	0	6	1,496,469,000	-38,649,000
NCBA BANK	2010	59,013,922	303,284	1	27	358,997,784	8,353,229
	2011	78,984,005	788,647	1	16	478,996,119	10,522,953
	2012	108,348,593	3,655,414	1	39	494,993,127	15,481,622
	2013	121,062,739	3,628,169	1	47	542,984,148	17,568,906
	2014	145,780,505	14,358,480	1	49	542,984,148	23,350,713
	2015	165,788,268	15,356,190	1	33	639,945,603	26,346,142
	2016	169,458,985	19,965,484	1	22	639,945,603	30,345,364
Standard Chartered Bank	2010	142,746,249	21,911,062	14	187	280,299,401	20,331,122
	2011	164,046,624	21,029,119	11	139	294,045,822	20,694,456
	2012	195,252,756	24,075,096	13	246	297,101,596	30,752,814
	2013	220,391,180	29,464,768	15	255	309,159,514	36,206,401

	2014	222,495,824	27,770,719	17	281	309,159,514	40,658,174
	2015	233,965,447	6,162,723	17	189	343,510,572	41,251,785
	2016	250,482,000	6,140,721	20	195	343,510,572	44,603,828
Diamond Trust Bank	2012	135,461,412	87,707,243	2	168	208,008	16,522,162
	2013	166,520,351	110,945,439	2	214	226,833	20,950,855
	2014	211,539,412	137,654,551	2	170	231,926	28,963,235
	2015	271,608,597	177,544,871	3	118	266,321	34,134,437
	2016	328,044,501	186,303,191	3	192	266,321	41,029,312
	2017	363,303,400	238,103,640	3	157	271,855	45,876,549
	2018	377,719,314	206,059,510	3	109	279,602	47,712,838
Uchumi supermarket	2012	4,941,888	80,309	0	19	332,713	2,657,810
	2013	5,573,533	99,185	0	10	346,281	2,925,412
	2014	6,884,853	200,000	0	11	355,281	3,357,314
	2015	6,412,996	382,944	0	4	364,962	739,355
	2016	5,002,216	488,530	0	5	364,962	-2,097,377
	2017	3,802,790	744,005	0	1	364,962	-2,644,637
	2018	4,133,092	1,973,044	0	0	364,962	-4,279,855
Housing Finance Corporation	2013	46,755,111	3,803,905	2	38	231,070	5,681,853
	2014	60,490,833	6,783,610	2	20	231,580	6,276,033
	2015	71,659,434	8,327,933	1	13	348,897	10,622,641
	2016	71,930,140	9,518,705	1	9	349,382	11,289,262
	2017	67,541,116	13,468,749	0	6	349,537	10,371,231
	2018	60,549,350	10,416,938	0	6	384,614	11,449,535
	2019	56,454,917	5,803,723	0	3	384,614	10,242,219
KenGen	2014	188,673,282	8,591,032	0	7	298,361,456	73,958,516

	2015	250,205,524	10,369,854	1	6	298,361,456	76,709,673
	2016	366,738,366	10,757,003	1	9	349,381,667	172,385,381
	2017	376,729,582	10,829,802	0	7	348,896,667	182,835,913
	2018	379,353,005	10,620,761	0	6	348,896,667	190,103,625
	2019	401,422,249	12,463,018	0	5	364,921,200	194,964,536
	2020	412,926,930	8,481,495	0	4	397,834,200	211,318,388
Longhorn Publishers Ltd	2014	747,531	310,011	1	8	58,500	434,320
	2015	689,320	41,677	0	5	102,375	380,378
	2016	1,866,944	476,728	0	5	102,375	947,567
	2017	1,858,734	334,194	0	4	272,440	945,706
	2018	2,407,529	584,799	0	5	272,440	1,039,638
	2019	2,344,234	0	0	5	272,440	1,104,304
	2020	2,450,164	354,739	0	4	272,440	734,765