

**THE EFFECT OF PUBLICATION OF FINANCIAL STATEMENTS ON  
STOCK RETURNS OF COMMERCIAL BANKS LISTED ON THE  
NAIROBI SECURITIES EXCHANGE**

**ALFRED TOO**

**D61/81525/2015**

**A MANAGEMENT RESEARCH PROJECT PRESENTED IN PARTIAL  
FULFILMENT OF THE REQUIREMENTS OF THE AWARD OF THE  
DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF  
BUSINESS, UNIVERSITY OF NAIROBI**

**DECEMBER, 2017**

## **DECLARATION**

This research project is my original work and has not been presented to any other institution for examination.

Signed..... Date.....

**Alfred Too**

**D61/81525/2015**

This research project has been submitted for examination with my approval as the University Supervisor.

Signed..... Date.....

**Mr. Abdullatif Essajee**

**Lecturer, Department of Finance and Accounting,**

**School of Business,**

**University of Nairobi.**

## **ACKNOWLEDGEMENT**

I thank almighty God for his mercy, grace and providence which empowered me to do this project.

To Mr. Abdullatif Essajee, my supervisor, many thanks for your support, guidance and criticism all enabled me to come up with this paper, may God continue to bless you.

Finally, extend my appreciation to my classmates and friends with their presence which offered motivation.

## **DEDICATION**

I dedicate this project to my parents, Jacob Lagat and Valentine Lagat and my siblings for the encouragement and support they provided during the period of study.

# TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iii</b>
<b>DEDICATION.....</b>	<b>iv</b>
<b>LIST OF GRAPHS.....</b>	<b>viii</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>ix</b>
<b>ABSTRACT.....</b>	<b>x</b>
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study.....	1
1.1.1 Publication of Financial Statements.....	2
1.1.2 Stock Returns.....	3
1.1.3 Publication of Financial Statements and Stock Returns.....	4
1.1.4 Commercial Banks Listed on the Nairobi Securities Exchange.....	4
1.2 Research Problem.....	5
1.3 Objective of the Study.....	6
1.4 Value of the Study.....	6
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>8</b>
2.1 Introduction.....	8
2.2 Theoretical Review.....	8
2.2.1 Efficient Market Hypothesis.....	8
2.2.2 Agency Theory.....	9
2.2.3 Signaling Effect.....	10
2.3 Determinants of Stock Returns.....	11

2.4 Empirical Review.....	12
2.4.1 Global Studies.....	12
2.4.2 Local Studies.....	14
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>18</b>
3.1 Introduction.....	18
3.2 Research Design.....	18
3.3 Population and Sample of the Study.....	19
3.4 Data Collection .....	19
3.5 Data Analysis .....	19
<b>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION .....</b>	<b>22</b>
4.1 Introduction.....	22
4.2 Data Presentation .....	22
4.2.1 Daily Closing Share Prices .....	22
4.2.2 Abnormal Returns Analysis.....	23
4.2.3 Stock Returns Reaction to Financial Statements Publication.....	24
4.3 Discussions of Findings .....	28
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS. ....</b>	<b>29</b>
5.1 Introduction.....	29
5.2 Summary of Findings.....	29
5.3 Conclusion of the Study.....	30
5.4 Recommendations.....	30
5.5 Limitations of the Study.....	30
5.6 Suggestions for Further Studies .....	31

<b>REFERENCES.....</b>	<b>32</b>
<b>APPENDICES .....</b>	<b>37</b>
Appendix 1: List of Commercial Banks Listed at NSE.....	37
Appendix II: Average Returns Statistics 2016 and 2015.....	38
Appendix III: Average Returns Statistics 2016 .....	39
Appendix IV: Average Returns Statistics 2015 .....	40

## **LIST OF GRAPHS**

Graph 1: Average AR 2016/2015 of 7 listed commercial banks.....	24
Graph 2: Cumulative average AR 2016/15 of 7 listed commercial banks .....	25
Graph 3: Average CAR 2016 of 7 listed commercial banks .....	26
Graph 4: Average CAR 2015 of 7 listed commercial banks .....	27



## **LIST OF ABBREVIATIONS**

**CAPM**-Capital asset pricing model

**CBK**-Central Bank of Kenya

**CMA**-Capital market authorities

**IAS**-International accounting standards

**IPO**- Initial public offer

**NSE**- Nairobi stock exchange

## ABSTRACT

The objective of the study is to establish if there is a relationship between the stock returns and the publication of the financial statements of listed commercial banks at NSE. Event study methodology was used to analyze stock returns to financial statement publication, event study enables determination of change of stock prices hence changes of returns by a particular change of event. An event period of 60 days was selected, 30 day prior to the announcement and 30 days after the announcement day was used to analyze the share prices movement during the period of announcement. The announcement day was represented by 0. The data collected incorporated 7 listed commercial banks under a scope of 2 years (2015 and 2016). Market Model was used to analyze the collected data, market model is a statistical model which relates returns of market portfolio to returns of a particular security hence fit to be used on this research. Actual returns (R) of stock were compared to return on the market, NSE 20 index was used. The abnormal return (AR) was the difference between the actual return from the return of the market and the cumulative abnormal return (CAR) was the summation of AR. For model testing T test was done since it is the standard test to use for a sample test from a population. From the findings, annual financial statements publication is a significant factor that influences the stock returns of listed commercial banks hence this event should be adopted by more companies to be listed at the NSE to better investors' returns. Reaction of investors behavior was observed through stock price movement before the announcement and goes on even after the publication of financial statements before the market stabilizes after a while. To check on abnormal reaction to prices of stocks the public need to be educated to encourage long-term investing, reduce panic trading and also improve on providing information on how stock trading works hence encourage more potential investors to participate.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Investors and business people rely much on information to make informed decisions. Decision making in all businesses are based on sound analysis of financial statements and therefore reliable and accurate data gathering and reporting of department's activities have a crucial importance in making decisions. Financial statements are literally a road map telling us where a firm has been, where it is now, and perhaps, where it is projecting to be in future. They are valuable guideposts that can provide best data for decision making if properly constructed and interpreted which will in turn signal success or disaster.

The key guiding theories in this study include efficient market hypothesis theory which shades more light of stock prices of financial assets in relation to availability of financial information. Theory focus on how information is put at available to investors at different period (Brown, 2012). Agency theory is another important guiding theory for this study it highlights the importance of shareholders wealth maximization and how this is reflected in share market price (Clarke, 2013). Signaling effect indicates potential investors behaviors in relation to information sharing and how the reaction with affect the stock share price

According to Cole and Shastry (2009), investors with alternatives to venture will rationally choose the investment that assures maximization of wealth and comparatively delivers higher returns. In deciding to invest, stakeholder behavior will be directed by the available financial information. Analysis of financial information delivers a technical basis to assess the past, present and projected performance of a company which is crucial for investment decisions to investors. The timing and distribution of the information to the market has considerable effect on how investors make decisions (Hughes, 2000).

Ely and Waymire (1996) and Francis and Schipper (1996) argue that the relevance of accounting values could not be rejected in determination of stock value. Financial statement communicates performance of a firm and results of the publication can have an impact on earnings and value of the stock (Burgsthaler and Dichev, 1998).

It is mandatory in Kenya for listed companies to publish annual financial statements. This is also a requirement of international financial reporting standards (Ozbek, 2012).

### **1.1.1 Publication of Financial Statements**

Publication of financial statements is a process by which financial reports are made available to the stakeholders. Company management act as agents to stakeholders some of the stakeholders 'are: Shareholders, they need to know the company's financial ability and know how their funds are utilized and also acts as score card to the managers. CBK, act as a watchdog to banks in terms of making sure that the laid down procedures and guidelines are followed accordingly.

Financial statements are an important tool in provision of crucial information to a number of users both internal and external. Prospect and potential investors, use the information in financial statements to make investment decisions. Listed companies use financial statements to communicate with stakeholders and the information are a great guide to investors (Vishnani& Shah, 2008). Like information content in efficient market hypothesis, financial statements contain valuable information that the market can react quickly to and it may have an impact on stock prices (Nasar, 2002).

According to Hayati (2010) the financial statements are the main indicators for estimation of more precise future predictions and the market will respond to the information and the response will be seen in the stock returns. In Kenya it is a requirement for listed commercial banks to publish their quarterly un-audited financial reports within a maximum of two months after the

period and the audited report should be published within three months past end of the financial year, both audited and un-audited financial statements have to be presented to CBK for their review before publication.

### **1.1.2 Stock Returns**

Stock returns are gains or losses got from investment on a security. Stock returns are also measured based on dividends paid. The value of a security is attached to each and every unit of the company stocks. (Almumani, 2014). The more the demand for stocks of a particular firm, the rise in price hence better returns and the reverse is true. The more supply of a stocks, the decrease in price lowering the returns of the securities and vice versa. So while in theory, a stock's par value is the price equivalent to the value of expected future dividend payout, the share price fluctuates as a result of demand and supply dynamics (Sanderson, 2009).

Stock returns are calculated based on the rise of price from the par value plus any dividend paid. Share price is driven by future dividends of the company. It is done through intrinsic value of a stock based on a future series of dividends that grow. The growth of a company is normally assumed to be a constant growth to dividends pays its shareholders. The three key inputs in the model are dividends per share, growth rate in dividends per share and required rate of return.

A company is assumed to exist forever and pays dividends per share annually that increase at a predetermined constant rate. The value of a stock is determined taking an infinite series of dividends per share and discounts then back into the present using the required rate of return. Capital markets respond to released information leading to stock price change in anticipation of better stock returns (Jordan et al., 2012)

### **1.1.3 Publication of Financial Statements and Stock Returns**

Listed firms derive their value for the owners through share price. Stock returns are subject to changes based on the firm's financial performance. Financial performance of a firm can only be known by the stakeholders through publication of the financials. Share prices are subject to fluctuation influenced by internal and external to the firm. Hence fluctuation of share price affects the expected returns by the investors. Firms which are not listed, their shares price may not be readily available and as a result the firms rely on less volatile figures from accounting system and investors in this case rely on published accounting information in stock selection decisions (Scoth and smith 2005).

A financial statement is a significant tool in estimation and measuring of company prospects in more precise and rational way. With publication of financial statement, the market will respond to the information in the published statements. Financial statements that portray a negative impression to the investors will weaken investors' interest to the company in the company and the reaction will later appear in the stock price hence affecting the stock returns (Hayati, 2010). Negative information may leads to no dividends to investors which lower the company's share price leading to low capital gains and vice versa. According to Opong (1996), investors are very keen on the information signal in financial reports.

### **1.1.4 Commercial Banks Listed on the Nairobi Securities Exchange**

In Kenya there are 40 commercial banks; reduce from 42 after Giro Commercial Bank was acquired by I&M Holdings and Diamond Trust Bank Kenya acquired Habib Bank Limited Kenya, Imperial Bank and Chase Bank are both under receivership (Cytonn, 2017).

CMA has additional oversight over listed banks. Commercial Banking institutions are licensed and regulated as per the provision of the Companies Act, Banking Act, Central Bank of Kenya Act and the Regulations and Prudential Guidelines issued by the CBK from time to time. The current guidelines were issued in January 2013. The banking industry in Kenya constitutes private and publicly owned banks. Out of the 44 commercial banks operating in Kenya, 11 are publicly owned and listed in the Nairobi Securities Exchange (NSE).

## **1.2 Research Problem**

Investors globally need useful information to make informed decisions. In most cases, the investors rely on figures and estimates in making decision about whether to invest in a company resulting in rational allocation of their funds. This information is found in financial statements which this study seeks to focus much on with respect to how its publication affects the stock returns of Kenya's listed commercial banks.

Financial reports is of importance to an organization since it gives the projection of how the company will perform, a positive financials report provides confidence to investors hence this influence moments of share price upwards ,while a firm under financial distress will influence its share price to a downward trend hence low returns to investors.

A number of studies have been undertaken on the financial statements but none has focused on how publication of financial statements affects stock returns of listed banks in Kenya. Alkali (2016) undertook a study on the value relevance of accounting disclosures among listed Nigerian firms, Swaleh (2016) also studies of impacts of publication of earnings to share price at NSE. Bialas (2013) undertook a study on how accounting policies affects the share prices of banks. Penman (1989, 1996) in his studies expressed that book value and earnings from accounting

variables can be used to interpret stock prices. The arguments are supported by Ohlson framework which expresses that stock value is a function of earnings per share and book value per share (Ohlson, 1995). The studies however did not focus on much on the effect of publication of financial statements on stock returns of listed commercial banks which this study seeks to fill the gap.

A few prior empirical studies have shed light on effects of a number of factors on stock returns of firms. However most of these studies have not focused on the impacts in terms of publication of financial statements. In Kenya, most studies have focused on pricing issues and performance of share prices at Nairobi Stock Exchange. For example, Cheluget (2008) study focused on investor's demand for IPOs and first day performance, Simiyu (2008) focused on pricing and performance of initial public offering, Karitie (2010) focused on long- run performance of IPOs and Wachira (2010) focused on the determinants of the success of IPOs among listed companies. Due to limited literature on effects of publication of financial statements on stock returns, this study seeks to fill this gap by looking into the effect of publication of financial statements on the stock returns of commercial banks listed on the Nairobi securities exchange.

### **1.3 Objective of the Study**

To determine the effect of publication of financial statements on the stock returns of commercial banks listed on the Nairobi Securities Exchange.

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

The study will form a basis of reference for future researchers and academicians who may conduct research on the effect of financial statements on the stock returns of listed banks and other financial institution. It will also be helpful to prospective investors to assist in the making



of informed decisions regarding investment in shares of particular financial institutions and generally in stock exchange. The findings will stimulate other researchers to venture and focus much into savings and benefits of publication of financial statements to potential investors and to banks. The study will in put to the general body of knowledge and also act as a basis for further research. It will also be useful to banks management and related institutions since it will provide much insight into the various approaches and knowledge on the effect of publication of financial statements to their share prices.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter presents a review of the related past literature of the subject under study. It includes research areas, theoretical approaches and summary of literature review. The review also outlines gaps identified, the historic research and current state situation of research in the field.

### **2.2 Theoretical Review**

This section discusses and articulates the relevant theories and concepts on how publication of financial statements affects share price of firms. These theories include the efficient hypothesis theory, agency theory, and signaling effect theory.

#### **2.2.1 Efficient Market Hypothesis**

Advanced by Paul Samuelson and Fama around 1960s, efficient market hypothesis theory explains stock prices of financial assets in relation to availability of financial information. An important aspect in stock market decision is efficient condition of the market. This is in terms of how information is put available for the investors and decision makers at certain point in time. The significant factor is how relevant the information can be in making informed investment decision. The model explains how stocks are reflected and priced perfectly. It assumes that the knowledge is available to investors equally (Malkiel , 2003).

The theory has been broken into three; weak-form hypothesis, semi-strong hypothesis and strong-form hypothesis. Weak-form hypothesis explains a state in which the current prices of financial assets takes into consideration the all existing historical information. With historical data, investors cannot reap much from such investment venture. Semi-strong hypothesis explains

a state in which the financial asset pricing reflects all information in the market including historical prices and information. The historical data is captured at any moment which makes prices to change rapidly to take in other new information as released on the market (Brown, 2012).

The strong-form states that the prices of financial asset reflect all information on the market which incorporates historical, current and future information. It reflects how stock price react in relation to availability of certain financial information which in turn affects investment behavior of investors since the investors focuses on larger future income. The state assumes that investors lack opportunity to earn abnormal profits from the market transactions compared to other investors, they cannot beat the market. It reflects a market in which the price reflects all relevant information (Milkier, 2003).

### **2.2.2 Agency Theory**

Introduced by Meckling in 1976, the agency theory focuses on shareholders' wealth maximization. It argues that managers are agents of the shareholders and are supposed to act in the best interest for the owners of a company. Every management action taken by the managers is aimed at delivering shareholders value. The market price of shares gives a good indicator to shareholders wealth maximization (Clarke, 2013). In the process of achieving the principal objective that shareholders wealth is maximized, there is need for proper monitoring and transparency measurers which include financial management measures and publication of financial reports (Van Horne and Wachowicz, 2009).

Accounting plays a significant role in shareholders wealth maximization through its ability to provide investors the opportunity to evaluate the return potential of investment opportunities and

also enables the investors to monitor the use of their capital once committed through publication and reporting of financial information. As part of stewardship accounting, it is the duty of directors to prepare and present at the end of each financial year financial statements of the entity to the shareholders and any other stakeholder; such as debenture holders, creditors, and government agencies as well as members of the public who are entitled to use of the financial statements (Anne *et al*, 2010).

Provision of accounting information as a monitoring tool has a positive impact on performance of the institution as well as investors' decision to invest in a given institution assets. This in turn will influence the share price of company shares.

### **2.2.3 Signaling Effect**

Signaling theory explains behavior where there is provision of information between two parties such as individuals and organizations. It involves business ventures communicating to potential investors based on value and commitment signal which reflects the performance of the firm. The communication presented is significant to potential investors in making rational investment decision (Busenitz *et al*, 2005). According to Bhattacharya & Dittmar (2001), investors put money where the mouth is and signaling mechanism is an important guide in making such crucial investment decision.

Ou and Penman (1989), confirm that financial ratios generated from financial statements can accurately predict future changes in earnings, and the same information can be used to predict the future returns. Signals predict future changes in earnings and future revisions in analyst earnings forecasts (Abarbanell and Bushee, 1998).

## 2.3 Determinants of Stock Returns

Several variables have been identified as factors influencing stock returns, these are net profits of the firm, dividends paid to the shareholders, earnings of the firm and inflation. Dividends are the portions of net profits allocated for distribution to the shareholders, shareholders then to prefer firms that pay consistently and high dividends to firms which retain their profits. Their inclination to higher paying stocks consequently result to greater demand for such shares leading to rise in their prices. Shareholders consider dividends as income to their investment in a firm; hence dividends and stock returns have a positive relationship hypothetically.

Inflation is rate at which price of items rise, the higher the inflation affects the stock returns and the lower the inflation the better the stock returns. Stock returns has a negative correlation with inflation.

Profitability of a firm is also one of the factors used to assess the share price, profits remaining after an organization pays corporate tax is of great concern. The higher the profits the higher the amount available to be distributed as dividends and also the higher the amount available to be reserved by the firm. Investors and shareholders will then to prefer firm with higher profits since it attributes to higher returns to their investments, hence this creates demand for their stocks leading to rise in stock returns.

Earnings of the firm is the price of the stock that investors are agreeing to pay for net profit realized by the firm. It's been determined by net profit divided by the total number of shares. Earnings will then be compared with the market price of the stock to determine if the stocks are above the market price or lower that is price per earnings ratio. The ratio indicates the market anticipations on future firm's performance; a high price per earnings ratio indicates investors are anticipating that the firm would have higher returns in the near future and are willing to invest

more on the firm. Earnings are expected to have a positive correlation with stock returns.

Size of the firm is determined based on its size of the assets, large firm are expected to have a huge profits since they benefit from economies of scale hence their stocks then to have a higher demand compared to the smaller firms. Love and Rachinsky (2007) argued that large firms then to have better performance .Investors anticipate higher returns from the profits hence their share prices then to be competitive and expectation of a positive relationship between the stock returns and the size of the firm.

## **2.4 Empirical Review**

Empirical review of previous studies demonstrates that publication of financial statements has an influence on investor's behavior. To arrive at informed decision, investors need useful information. Financial statements are a critical communication to investors and other stakeholders.

### **2.4.1 Global Studies**

Almakrami (2013) studied on the impact of the accounting policies on the share prices of firms and banks. He opines that accounting policies impacts financial statements. The information contained in financial statement act as a guide to investors. The study further shades more light on how the financial information affect stock returns .The objective of the study was to analyze the reaction of investors to the differences between the results of the income statement and cash flow statement. The study randomly studied 20 listed companies and 10 banks within the period 2001 and 2012. The study concluded that there is no correlation between accounting policies and stock price change.

Glezakos (2012) studied on the effects of accounting information on share returns. The study sought to examine the effects of book value and earnings in the formulation of share prices. He found out that investors strive to analyze key elements of financial statements for decision making. The study sampled 38 companies in Athens stock exchange for the period 1996 and 2008. The sample constituted a 10% of listed firms in Athens stock exchange. The study concluded that certain accounting parameters have an impact on stock prices.

Perera and Thrikawala (2010) conducted a study on importance of accounting information to investor's based on Colombo Stock exchange and the findings indicated there was a relationship between accounting information and market price per share. The study only focused on 6 commercial banks listed at the stock exchange as a sample. Therefore the results do not represent evenly to the banks, finance and insurance sector in stock market listed in the stock exchange.

Edward (2007) studied on signaling firm performance through presentation of financial statement. It focused on presentation of special items through financial statement with a special focus on examination of aggregation as well as disaggregation within income statement to highlight special items. The study covered 1993-2002 as a study period with a 500 firms as a sample of whole population which was 1500 firms. The study concluded that financial statement presentation decisions can affect users' judgments. The study suggested that income statements should be used to identify firm performance.

Healy and Palepu (2001) analyzed and reviewed empirical studies focusing on presentation of financial statement as a disclosure and suggest that disclosure informs the financial information users about the performance of the firm. The performance reflects the leadership performance as well as financial performance of the firm.

Urrutia (1995) further studied the topic with a focus on emerging markets. The efforts was to effort find whether the stock market is efficient in setting up prices of shares correctly traded on the market with a focus on disclosure of financial information such as dividend announcement and stock splits. The studies focused much on earning announcements and less on impacts of publication on share price. They found out that earning figures on financial statements contain very significant and useful information. The study only focused on four markets in Latin America

#### **2.4.2 Local Studies**

Swaleh (2016) studied on reaction of share prices to earnings announcement of firms listed on NSE .The population of the study was 65 active listed firms and the duration of study was 2014-2015.He factored in 30 days prior and after the earnings announcement, from the findings he noted that earnings announcement influences the share price and the market is relatively in efficient .Investors reacted more on reduce in earnings more than when there is an increase in earnings.

Mukora (2014) studied implications of dividend announcement on stock returns listed commercial banks at the NSE, she sampled five commercial banks and used event study methodology to analyze five years .The conclusion was the average return were negative in the period prior to announcement of divided and positive after dividend announcement .

Ngure (2014) researched on interim financial statement announcement on stock return and volume of share traded of listed commercial banks in Kenya. He argues that interim information can be used by users of financial information in making investment decision. However he did not focus on annual report. Also the policy on interim report financial statement is not well adopted by firms in Kenya. The study employed an event study methodology where the impact of interim



financial statement on stock return was investigated for an event window of 15 days, 10 days before the announcement and 5 days after interim earnings announcement. The study period covered is between 2009 and 2013 and took 3 listed commercial banks as a sample of the population. The whole population was 11 listed commercial banks in Kenya. The study suggested a further research on the topic to determine how stock market reacts to financial report information and how it can affect the stock price

Kangai and Kiremu (2013) opine that common stock prices react to information contained in accounting based earning disclosures. The study sought to establish how the NSE responds to annual earnings announcement by testing how the share price and trading volumes respond to the announcement as well as establish the efficiency of the market response to the announcement. This study used a sample of 11 out of 58 companies between 2006 and 2010. They concluded that information contained in the annual earnings announcement is absorbed efficiently in the share prices eliminating any chances of traders earning abnormal returns around the event date. They suggested a further study to establish the nature of the market reaction to information and interim reports.

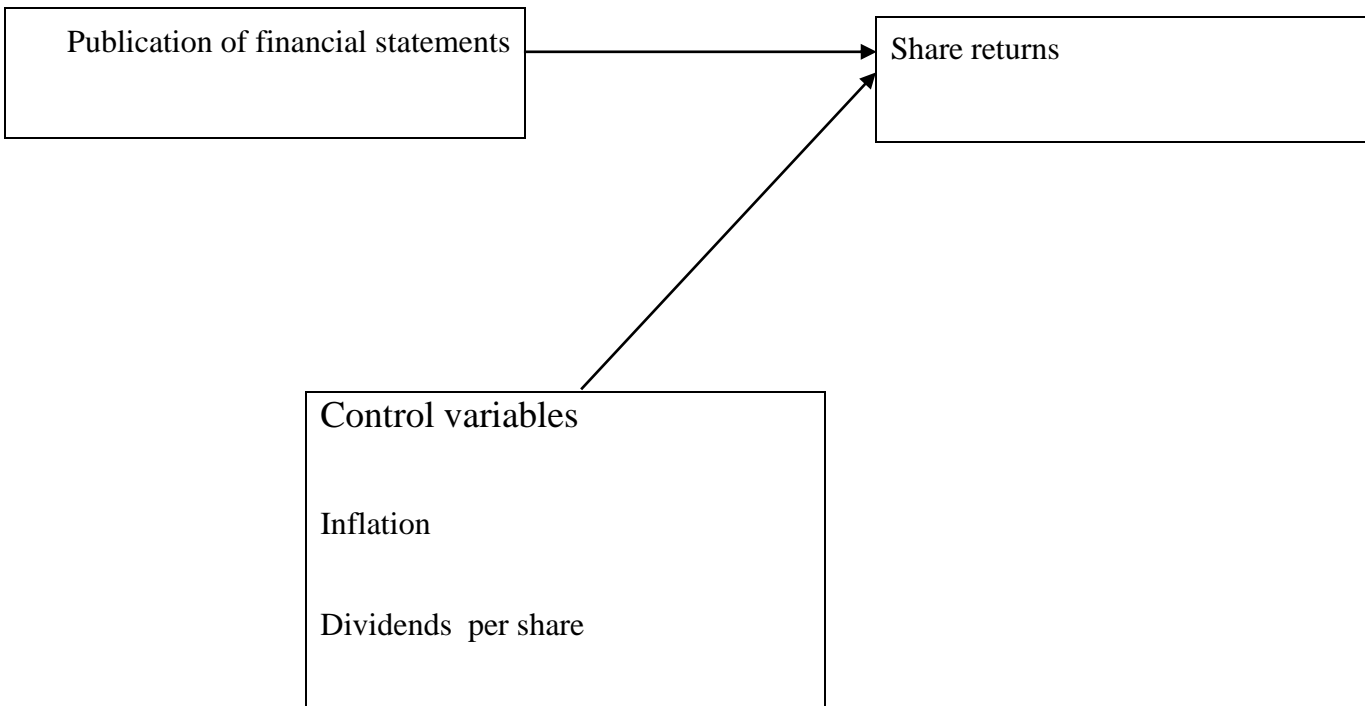
Njuru (2007) researched on effects of stock dividend announcement on existence of under reaction anomaly at of listed firms at NSE. The conclusion was there was a general decline in abnormal returns and cumulative abnormal returns 20 days prior to dividend announcements and a general rise after dividend announcements.

## 2.5 Conceptual Framework

The conceptual framework outlined below demonstrates the expected relationship between publication of financial statements and share prices.

### Independent variable

### Dependent variable



## **2.6 Summary of the Literature Review**

The theories discussed are related and guides the argument of this study. The theories are based on various assumptions which are necessary to the understanding of the diverse aspects of the effects of publication of financial statements on share price. Hypotheses theory focuses on how investors can make investment decisions based on availability of information. Agency theory focuses shareholders' wealth maximization and how proper management of firm assets affects the attraction of the investors which in turn affects the overall value of the firm and firm assets which will finally have an impact on firm value at the market and finally its share price. Signaling effect highlights the importance of business ventures communicating to potential investors based on signaling factors which will finally have an impact on the overall firm value and share price.

The provision of information and sharing it to the public has therefore lead to investors' behaviour and also attributes to share price movement in the market. This study will further narrow its research undertakings to the gaps with an aim of gathering data that would help to come up with effective recommendations on effects publication of financial statements on share price of banks in Kenya.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter states the approach used in the study to find responses to the research question. The research methodology will be accessed beginning with research design, target population, data collection methods, instruments of data collection and lastly data analysis.

### 3.2 Research Design

I used event study methodology to analyze stock returns to financial statement publication, Event study enable to determine changes on stock price hence changes of returns by a particular change of event. Event study is viewed as important technique used by other researchers ( Pyemo 2011); Rono (2013) and Kangai (2013) to analyze share prices reaction to new information . According to MacKinlay (1997), the period of announcement has an effect on stock returns .I analyzed the share price movement of an event period of 60 days, 30 day prior to the announcement and 30 days after the announcement day. The announcement day was represented by 0.

-30, -29, -28, -27, -26,25,...-3, -2, -1, 0, +1, +2, +3...,+25,+26, +27, +28, +29, +30.

Event window of 60 days, 30 days before the announcement of financial statements and 30 days after the announcements was used.

A broad period of (-30 to +30) used since market is expected to react before the announcement of financial statements based on opinions and react after publication on day 0 before stabilizing which may take a duration of time. Share returns are the dependent variable and publication of the annual financial statements independent variable.

### **3.3 Population and Sample of the Study**

Schindlers (2003), opines that population is a complete set of individual's area of objects with common characteristics to which the researcher wants to generalize the result of the study. The population for this study was 11 listed commercial banks in Nairobi. The sample size used was 7 listed commercial banks.

### **3.4 Data Collection**

Data collection is the process of gathering relevant information on the study problem (Kothari, 2003). The study utilized secondary data. The financial information reports published by financial institutions, NSE 20 index and closing share daily prices reports for the period (2017-2016) were used.

### **3.5 Data Analysis**

Market Model was used to analyze the collected data. According to MacKinlay (1997), market model is a statistical model which relates returns of market portfolio to returns of a particular security hence fit to be used on this research. The model is represented as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}$$

Where,

$R_{it}$  = actual stock return  $i$  at time  $t$ ,

$R_{mt}$  = market return at time  $t$ ,

$\alpha$  = is the constant in the regression equation,

$\beta$  = is the volatility of the stock return relative to market index,

$\epsilon_{it}$  = error term.

The abnormal return (AR) defined as the deviation of the actual stock price at the prevailing market condition. It was computed as:

$$AR_{it} = R_{it} - (E)R_{mt}$$

Average abnormal return was obtained as follows:

$$R_t = \sum (AR/m)$$

$M$  represents the number of stocks in set considered.

Cumulative abnormal return (CARs) was also determined in order to establish the sensitivity of the share price to financial statement publication. The CAR was calculated as follows:

$$CAR = 1/N \sum AR_{it}$$

Where,

$N$  is number of firms in each category

Statistical significance of the data was determined using T-test:

$$t_{AR} = AR_t / SD(AR_t)$$

Where  $SD(AR_t)$  is standard deviation of  $AR_t$

### **3.6. Chapter Summary**

An event study was used since it can explain response to a particular variable triggered by a particular event, in this case the variable considered is the share returns and the event is publication of financial statements, event window of 15 days and event period of 30days before publication were utilized and also 30days after publication period was analyzed for the study.

A choice of 30 days before and after the event date is to provide a good reaction in the abnormal stock returns movement.

The scope of the data used was for two years (2015 and 2016).The sample was appropriate for cross sectional analysis. Market model was used for data analysis since its appropriate for a study of short duration of time with high volatility compared to CAPM, also short term stock price movements are linear hence market model was sufficient for this.

Actual returns of stock were compared to return on the market. The abnormal return was the difference between the actual return (AR) from the return of the market and the cumulative abnormal return (CAR) was the summation of AR. For model testing T test was done since it is the standard test to for a sample test from a population as opposed to Z test which requires the whole population.

## **CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION**

### **4.1 Introduction**

This chapter summarizes the data analyzed, results found and discussion regarding the topic. A sample of 7 out of a population of 11 was used for reference on this study, for each bank end year financial publication dates were obtained from their website and from NSE reports, closing share prices were obtained from NSE historical data. NSE 20 index was used as the reference of the market.

A 2 year period of study was done; average abnormal return and cumulative abnormal return were analyzed for event window of 30 days before publication and 30 days after publication.

### **4.2 Data Presentation**

#### **4.2.1 Daily Closing Share Prices**

A sample of 7 listed commercial banks was used in this study ;Equity Group Holdings ,NIC Group PLC ,Standard Chartered Bank Ltd, Barclays Bank Ltd, KCB Group Ltd ,Diamond Trust Bank Kenya Ltd and The Co-operative Bank of Kenya Ltd .

Daily closing share prices of each of the 7 banks were recorded, NSE 20 index for the period -30 day to +30 day at the time of announcements of the annual financial statements.



A sample of the data collected is as below.

<b>Standard Chartered Bank Ltd</b>			
<b>Days from Publication day</b>	<b>Share Prices</b>	<b>NSE 20 Index</b>	<b>MR(Points )</b>
30	219.45	4,033.06	6.1
25	220.45	4,039.93	3.8
20	221.95	3,979.03	-2.
15	213.95	4,002.53	4.8
10	215.45	3,971.31	-8.
5	217.95	3,945.28	-1.
0	214.95	3,934.08	3.4
-5	207.45	3,942.53	-6.
-10	200.45	3,970.71	-4.
-15	197.95	3,952.86	4.4
-20	196.45	3,938.61	4.2
-25	196.45	3,971.78	2.9
-30	202.95	3,942.08	-2.

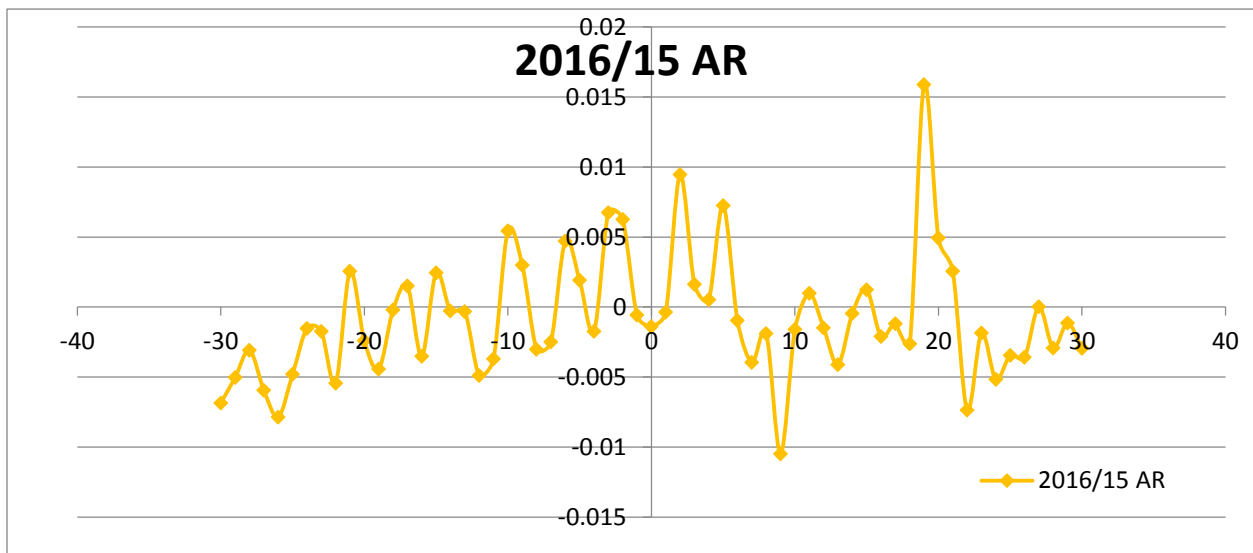
#### **4.2.2 Abnormal Returns Analysis**

Theoretically, markets are said to be efficient markets when the share prices absorb all the information related to the market; historical, current and expected information hence at no point are investors expected to earn abnormal returns (Malkiel,2003).

### 4.2.3 Stock Returns Reaction to Financial Statements Publication

Markets Model was used to determine abnormal returns and the cumulative abnormal returns at the period of study. The difference between expected returns and actual returns enabled obtaining abnormal return .Average AR for the 7 banks were represented in a time plot to obtain a trend:

**Graph 1: Average AR 2016/2015 of 7 listed commercial banks**

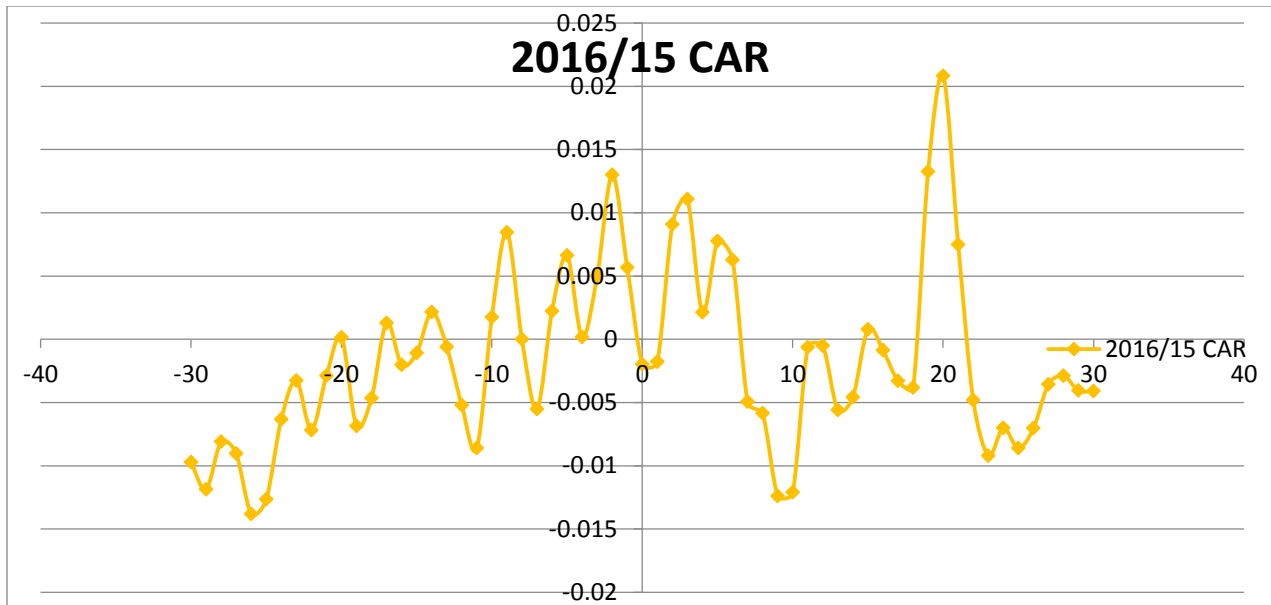


The figure above shows statistical evidence on relationship between abnormal returns and information released to the public evident through stock returns movement

According to efficient market theory, in a strong form markets no one is able to obtain abnormal returns, the stock prices factors in all the information in the markets .In this case there is a continuous increase in abnormal returns in a period before publication with -2 day as the high point before publication at 0 day with a bit low returns, then there is a significant increase in the abnormal returns on +2 day and the highest point on abnormal returns is on +19 day.

The period of volatility goes on up to +23 days after publication then there is ease of stock prices movements hence reducing the abnormal returns.

**Graph 2: Cumulative average AR 2016/15 of 7 listed commercial banks**



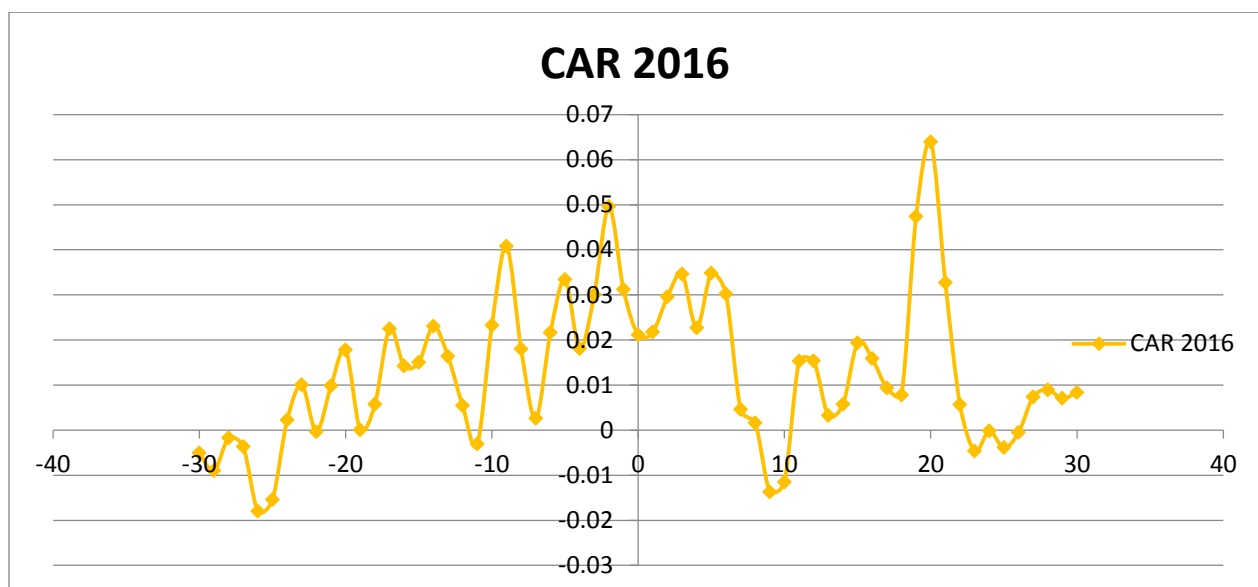
The graph above shows average CAR of 7 listed banks used in the study, there is continuous volatility with negative abnormal returns until -10 days where it bounces back to positivity and slows down on 0 day to negative once again before regaining volatility of the CAR persists to the +23 day when normalcy is restored.

The share prices increase resulting to more abnormal results this is consistent with Dahmash et al ,(2012) who stated that there is a substantial positive relationship between financial reports publication to stock return at announcement period .

The fall on CAR depicts inefficiency in the market; information released from the financial statement affects investors trading patterns. At the period of negative abnormal returns it implies that investors then to make lose meaning the stocks involved then to underperform after

publication. Negative information attracts a negative reaction of investors to stocks resulting to panic sell, and with the demand and supply mechanism in place more sales results to fall in prices and when there is high demand for purchase of stock due to positive release of information there is rise in prices giving better returns due to limited supply of the stocks.

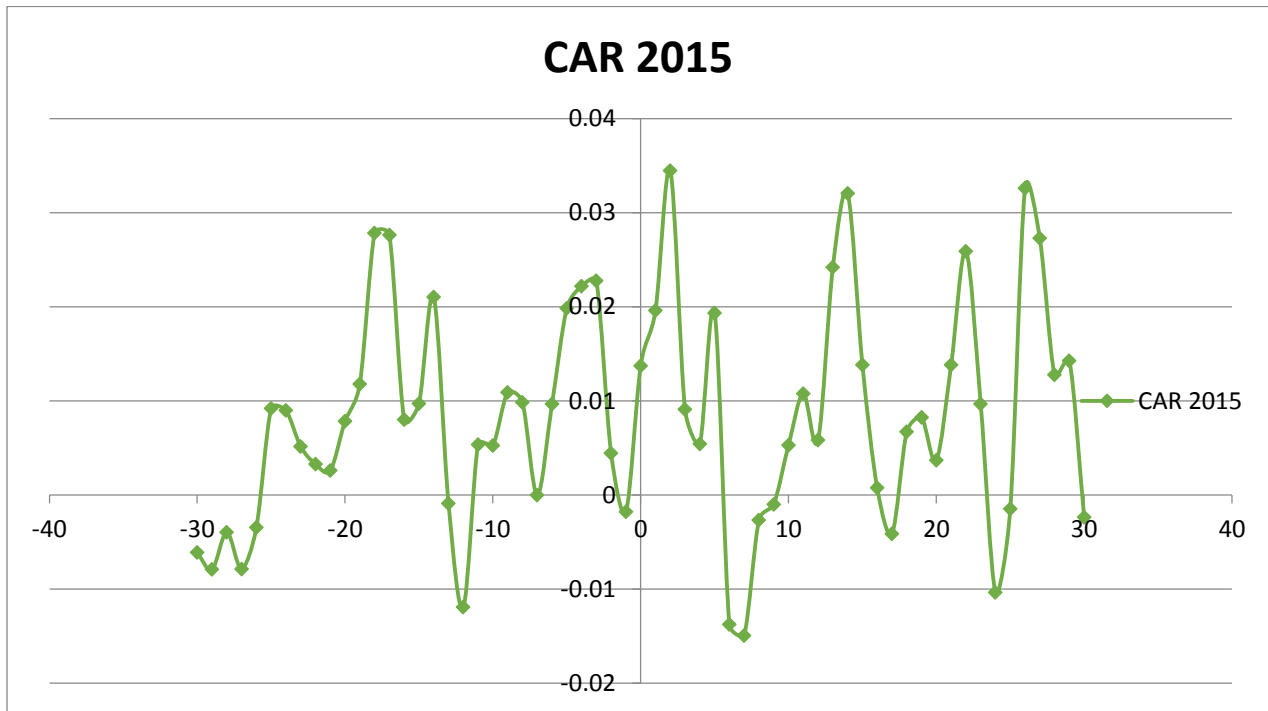
**Graph 3: Average CAR 2016 of 7 listed commercial banks**



From the above graph there is an upward volatility trend of the abnormal returns in the period before publication, meaning there is a continuous increase on share prices hence better returns.

After publication there is a downward movement on the abnormal return with less volatility compared to before publication.

**Graph 4: Average CAR 2015 of 7 listed commercial banks**



From the above graph at -30 day investors got negative abnormal returns but as the days for publications approaches there is rise in abnormal returns with positive returns in majority of the days during the period of study.

Investors may be tempted to sell at the high levels expecting to go low so one can buy and take their profits out the trade.

At +30 day abnormal returns tend to stabilize almost similar to -30 day levels that is probably the end of the publication period, hence we can conclude that with publication there is increase in abnormal returns.

### **4.3 Discussions of Findings**

The objective of the study is to establish if there is a relationship between the stock return and the publication of the financial statements of listed commercial banks at NSE. . From the findings the share prices increase resulting to more abnormal results this is consistent with Dahmash et al, (2012) who stated that there is a substantial positive relationship between financial reports publication to stock return at announcement period.

According to Busenitz et al, (2005), communication presented is significant to potential investors in making rational investment decision .The fall on CAR depicts inefficiency in the market hence this is in line with signaling effect theory.

Information released from the financial statement affects investors trading patterns, at the period of negative abnormal returns it implies that investors then to make lose meaning the stocks involved then to underperform after publication. Negative information attracts a negative reaction of investors to stocks resulting to panic sell, and with the demand and supply mechanism in place more sales results to fall in prices and when there is high demand for purchase of stock due to positive release of information there is rise in prices giving better returns due to limited supply of the stocks.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS.**

### **5.1 Introduction**

This chapter outlines a summary of final findings, conclusions and recommendations on the effect of publication of financial statements on stock returns of listed commercial banks at NSE it also provides suggestions for further research.

### **5.2 Summary of Findings**

The objective of the study was to determine the effect of publication of financial statements on the stock returns of commercial banks listed on the Nairobi Securities Exchange. The period was of 2015 to 2016. An event window of 30 days before publication and 30 days after. Average AR was determining the difference between daily returns and expected returns for the period of study.

Cumulative AR was determined by summing up all the average AR for the period of study. Analysis of the 2 years period shows that the graphs of average AR and cumulative average AR had an upward trend before publication and a downward trend after the publication day. Rise in abnormal return during the period of publication could be due to anticipation for positive reports to be published at 0 days, also with market sentiments in place investor then to rush for speculative purchases of stocks hence publication of financials is a significant factor in determining of share prices.

By observation of abnormal returns movements, the market is not a strong form efficient market and with the delay in adjustments of the prices, some investors may exploit the inefficiency in the market to earn abnormal returns.

### **5.3 Conclusion of the Study**

From the findings, annual financial statements publication is a significant factor that influences the stock returns of listed commercial banks hence this event should be adopted by more companies to be listed at the NSE to better investors' returns.

### **5.4 Recommendations**

To check on abnormal reaction to prices of stocks the public need to be educated to encourage long-term investing , reduce panic trading and also improve more information on how stock trading works hence encourage more potential investors to participate .

NSE should keep records of various calendar events and ensure availability of information; this will encourage more scholars to research on events, availability of the data assist on getting reliable guide to all stakeholders of NSE.

CMA should effectively monitor the market to ensure compliance with guidelines, insider trading laws, regulations and rules. This will reduce insider trading, incidences of collision between traders and legalized brokers, leaking of information this hence will boost investor's confidence in the market.

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

The main challenge encountered was acquiring of data to be analyzed from NSE. The cost to acquire historical data from NSE is high.

Also not all commercial banks data was available for the required period of study hence limiting the number for study.

With my nature of employment i had limited time for collection and analysis of data.



## **5.6 Suggestions for Further Studies**

The time range of study should be lengthy more than the 30 days period before publication and 30 days after publication duration of research used on this finding. Longer duration will give more insight on the effects of publication of financial statements to stock returns of listed Kenyan commercial banks.

Secondly research should be done of other sectors listed on NSE other than Commercial banks sector on the effects of announcing financials statements on their stock returns

Also other variables affecting stock returns should be studied other than publication of financial statements this enables a detailed understanding of the market.

## REFERENCES

- Abarbanell, J., & B. Bushee. (1997). Fundamental analysis, future earnings, and stock prices. *Journal of Accounting Research*, 35: 1–24.
- Alkali, M. Y., & Lode, N. A. (2016). The value relevance of accounting disclosures among listed Nigerian firms: IFRS adoption. *Iranian Journal of Management Studies*, 9(4), 707.
- Anne, B., Daniel, A. C., Thomas, Z. L. & Beverly, R. W. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50(2-3): 296-343.
- Badenhausen, K. (2005). “Borrowing Trouble.” *Forbes*, April 11, pp. 80.
- Bamber, L. S. (1987). Unexpected earnings, firm size, and trading volume around quarterly earnings announcements. *Accounting Review*, 510-532
- Bernard, V. L. (1995). “The Feltham-Ohlson Framework: Implications for Empiricists”. *Contemporary Accounting Research*
- Busenitz, L.W., Fiet, J.O., & Moesel, D.D. (2005). Signaling in venture capitalist-new venture team funding decisions: Does it indicate long-term venture outcomes? *Entrepreneurship Theory and Practice*, 29: 1-12.
- Burgsthaler, D., & Dichev I. (1998). Earnings, adaptation, and equity value. *The Accounting Review*, 72, 187-215.
- Bhattacharya, U., & Dittmar, A. (2001). Costless versus costly signaling: Theory and evidence from share purchases. Working paper, Indiana University, Bloomington

- Brown, R., (2012). Analysis of investments & management of portfolios
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39-67.
- Cheluget, J.K. (2008). Investor's Demand for IPOs and First Day Performance: Evidence from Nairobi Stock Exchange. Unpublished MBA Project, University of Nairobi.
- Cytton report (2017). Kenya listed commercial Banks Analysis: Consolidation & resilience in challenging environment.
- Ely, K., & Waymire, G., (1996). Accounting standard-setting organizations and earnings relevance. *Working paper*, Emory University, Atlanta, GA.
- Fernandez, P. (2001) Company Valuation Methods: The Most Common Errors in Valuations. Social Science Research Network.
- Francis, J., & Schipper, K (1996). Have financial statements lost their relevance?. *Working paper*. University of Chicago
- Hayn, C. (1995). The information content of losses. *Journal of Accounting and Economics*, 20, 125-153
- Hayati, N. R. (2010), Financial Statement Report and its Effect on Stock Price, *Widyatama University*, Volume 9 Spring
- Hughes, K.E. (2000). The value relevance of nonfinancial measures of air pollution in the electric utility industry. *Accounting Review*, 75(2), 209

- Jennergren, P. & Korsvold, (1975). The Non- Random Character on Norwegian and Swedish Stock Market Prices, *International Capital Market*, (North Holland)
- Kangai, M. & Kiremu. G (2013). Stock Price and Volumes Reaction to Annual Earnings Announcement: A Case of the Nairobi Securities Exchange. Chuka University
- Karitie, D. W. (2010). Long-run Performance of Initial Public Offerings: Evidence from the NSE. Unpublished MBA Project, University of Nairobi.
- Klee, E. C., & Fabio M. Natalucci. “Profits and Balance Sheet Developments at U.S. Commercial Banks in 2004.” *Federal Reserve Bulletin*, Spring 2005, pp. 143–74.
- Kothari, S. P. (2001) Capital Markets Research in Accounting. *Journal of Accounting and Economics*, v. 31, p. 105-231.
- Love, I & Rachinsky, A. (2007). Corporate governance, ownership and bank performance in emerging markets: evidence from Russia and Ukraine. Retrieved from [http://siteresources.worldbank.org/DEC/Resources/Corporate\\_Governance\\_Ownership\\_and\\_Bank\\_Performance.pdf](http://siteresources.worldbank.org/DEC/Resources/Corporate_Governance_Ownership_and_Bank_Performance.pdf).
- Mackinlay, A. C. (1997). On Multivariate Tests of the CAPM. *Journal of Financial Economics*, 18(2), 341–71
- Malkiel B., (2003). The efficient market hypothesis and its critics, Princeton University, CEPS Working Paper No. 91

- Mukora (2014). Effect of dividend Announcement on Stock Returns of Firms Listed in Nairobi Securities Exchange
- Nasar K. (2002), Share Price Reactions to the Release of Financial Statements in Emerging Stock Markets: the case of Saudia Arabia, *International Financial system and Stock Volatility*, Issues and Remedies Volume13.
- Nauman, K., & Amanullah “Determinants of Share Prices at Karachi Stock Exchange „” *International Journal of Business and Management Studies*, Vol , 4, No 1,(2012)
- Ngure, L.W (2014).Effect of interim financial statement announcement on stock return and volume of share traded of listed commercial banks in Kenya. University of Nairobi
- Njuru, J.M. (2007). The Existence of Under Reaction Anomaly at the NSE .University of Nairobi
- Ohlson, J. A. (1995). Earnings, Book Values, and Dividends in Equity Valuation. *Contemporary Accounting Research*, v. 11, p. 661-687.
- Ou, J., & S. Penman. (1989). Accounting measures, price-earnings ratio, and the information content of security prices. *Journal of Accounting Research* 27(supplement): 111–43.
- Perera, R.A.A.S. & Thrikawala S.S (2010), An Empirical Study of the Relevance of Accounting Information on Investor’s Decisions, *ICBI*, University of Kelaniya, Sri Lanka
- Pohlman, A.R. (1978), A note on the Price Behavior of Far Eastern Stocks, *Journal of International*
- Swaleh ,B.A, (2016) .Effect of earnings announcement on share price in Kenya: a study of NSE

Urrutia, J.L. (1995), *Test of Random Walk and Market Efficiency for Latin American Emerging Markets*, *Journal of Financial Research* 18(3)

Ziebart, D. A. (1990). *The association between consensus of beliefs and trading activity surrounding earnings announcements*. *Accounting Review*, 477-488.

## **APPENDICES**

### **Appendix 1: List of Commercial Banks Listed at NSE**

Barclays Bank Ltd

CFC Stanbic Holdings Ltd

I&M Holdings ltd

Diamond Trust Bank Kenya Ltd

Housing Finance Company Ltd

Kenya Commercial Bank Ltd

National Bank of Kenya Ltd

NIC Bank Ltd

Standard Chartered Bank Ltd

Equity Bank Ltd

Cooperative Bank Ltd

**Nairobi Stock Exchange: November 2017**

## Appendix II: Average Returns Statistics 2016 and 2015

	<b>Average Share Prices</b>	<b>Actual Returns (%)</b>	<b>NSE 20 Share Index</b>	<b>MR (%)</b>	<b>AR (%)</b>	<b>CAR (%)</b>
30	74.28	0.08	3970.23	0.36	-0.30	-0.41
25	74.35	-0.23	3961.50	-0.09	-0.34	-0.86
20	74.89	0.55	3963.81	-0.19	0.49	2.08
15	73.19	0.44	3964.36	0.26	0.12	0.08
10	72.72	0.07	3951.36	0.11	-0.16	-1.21
5	73.60	0.79	3960.56	-0.18	0.72	0.78
0	71.51	-0.03	3946.37	-0.09	-0.14	-0.20
-5	70.18	0.37	3938.28	0.01	0.19	0.66
-10	69.30	0.87	3937.85	0.27	0.54	0.17
-15	68.65	0.37	3904.45	-0.06	0.24	-0.11
-20	68.16	0.02	3884.30	0.16	-0.24	0.01
-25	67.99	-0.23	3866.96	0.14	-0.48	-1.27
-30	68.97	-0.50	3839.72	0.03	-0.68	-0.97



### Appendix III: Average Returns Statistics 2016

	<b>Average Share Prices</b>	<b>Actual Returns (%)</b>	<b>NSE 20 Share Index</b>	<b>MR (%)</b>	<b>AR (%)</b>	<b>CAR (%)</b>
30	64.39	0.19	4006.25	0.71	0.24	0.83
25	64.53	-0.53	3988.79	-0.18	-0.01	-0.39
20	65.62	1.27	3993.42	-0.37	1.89	6.39
15	62.21	1.04	3994.52	0.51	1.20	1.93
10	61.27	0.17	3968.51	0.22	0.48	-1.15
5	63.02	1.85	3986.93	-0.36	2.46	3.48
0	59.42	0.90	3958.54	-0.19	1.43	2.11
-5	56.18	0.92	3942.36	0.03	1.33	3.34
-10	54.44	2.24	3941.49	0.53	2.39	2.32
-15	53.13	0.97	3874.71	-0.13	1.46	1.50
-20	52.15	0.05	3834.40	0.32	0.31	1.78
-25	51.82	-0.61	3799.73	0.28	-0.33	-1.54
-30	53.77	-0.94	3745.24	-0.01	-0.51	-0.51

## Appendix IV: Average Returns Statistics 2015

	<b>Average Share Prices</b>	<b>Actual Returns (%)</b>	<b>NSE 20 Share Index</b>	<b>MR (%)</b>	<b>AR (%)</b>	<b>CAR (%)</b>
30	79.88	-0.52	3944.94	0.10	-0.20	-0.24
25	77.06	0.39	3960.76	-0.16	0.34	-0.15
20	75.57	0.21	3986.95	-0.06	0.30	0.37
15	75.93	-0.15	3977.98	0.27	0.40	1.38
10	74.22	-0.03	3949.49	0.38	0.69	0.53
5	75.53	-0.13	3950.40	-0.18	-0.21	1.93
0	73.72	0.90	3938.36	-0.03	1.02	1.37
-5	72.91	0.18	3906.99	0.40	0.92	1.98
-10	72.24	-0.05	3877.42	0.06	0.21	0.52
-15	72.63	0.29	3869.21	0.23	0.78	0.97
-20	70.75	0.13	3845.39	0.17	0.54	0.78
-25	70.93	-0.16	3826.35	0.48	0.70	0.92
-30	71.87	-0.63	3815.78	-0.11	-0.61	-0.61