THE EFFECT OF FINANCIAL PERFORMANCE ANNOUNCEMENT ON SHARE RETURNS OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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NOVEMBER, 2014
DECLARATION

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

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This research project has been submitted for examination with my approval as the candidate’s university Supervisor.

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DEDICATION

I dedicate this project to my parents, family and the school of business at the University of Nairobi for being a strong pillar throughout my MBA course. I have been deeply humbled by the knowledge acquired and support accorded to me during my studies at the university.
ABSTRACT

Corporate events have numerous effects on the stock market and it has been observed that share price movements is an area of research that has attracted the attention of various researchers, Firms listed in the security markets are required by law to communicate periodically their financial performance to stakeholders through financial announcements. However, efficient markets immediately absorb and reflect the new information into the share prices. This paper examines the effect of financial performance announcement on share returns of firms listed at the Nairobi securities exchange by analyzing daily share prices and market returns for the period between 2010 and 2013, using the event study methodology, secondary data was collected and analyzed using the market model.

The results obtained indicate that the average abnormal returns were not significant at 5% probability level. Thus the NSE is of semi-strong efficiency, whereby it is not possible to earn abnormal returns in the NSE using the publicly available information.
# TABLE OF CONTENTS

Declaration................................................................................................................................... i
Acknowledgements.................................................................................................................... ii
Dedication.................................................................................................................................. iii
Abstract...................................................................................................................................... iv
List of Tables............................................................................................................................ vii
List of Figures......................................................................................................................... viii
List of Abbreviations................................................................................................................ ix

**CHAPTER ONE: INTRODUCTION**.................................................................................. 1
  1.1 Background Of The Study.......................................................................................... 1
    1.1.1 Financial Performance Announcement........................................................... 2
    1.1.2 Share Returns.................................................................................................... 3
    1.1.3 Financial Performance announcement and Share Returns ............................ 5
    1.1.4 Nairobi Securities Exchange........................................................................... 6
  1.2 Research Problem....................................................................................................... 7
  1.3 Research Objective..................................................................................................... 9
  1.4 Value of the Study....................................................................................................... 9

**CHAPTER TWO: LITERATURE REVIEW**..................................................................... 11
  2.1 Introduction.............................................................................................................. 11
  2.2 Theoretical Literature Review................................................................................... 11
    2.2.1 The Efficient Market Hypothesis(EMH)............................................................. 11
    2.2.2 Signaling Theory............................................................................................... 12
    2.2.4 Random Walk Hypothesis............................................................................. 13
  2.3 Empirical Literature Review..................................................................................... 14
  2.4 Summary of Literature Review................................................................................ 17

**CHAPTER THREE: RESEARCH METHODOLOGY**.................................................... 19
  3.1 Introduction.............................................................................................................. 19
3.2 Research Design......................................................................................................19
3.3 Population of Study...............................................................................................20
3.4 Sampling Design...................................................................................20
3.5 Data Collection.................................................................................20
3.6 Data Analysis...................................................................................21

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION.25
4.1 Introduction............................................................................................................25
4.2 Average Abnormal Returns During the Event Window.................................25
4.3 Cumulative Average Abnormal Returns during the Event Window...............28
4.4 Discussion of Findings...........................................................................................30

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.32
5.1 Introduction...............................................................................................................32
5.2 Summary of Findings...............................................................................................32
5.3 Conclusion..................................................................................................................32
5.4 Recommendations.....................................................................................................33
5.5 Limitations of the Study...........................................................................................34
5.6 Suggestions for Further Research..........................................................................34

REFERENCE.............................................................................................................36

APPENDICES.......................................................................................................................41

APPENDIX I: Firms Listed On The Nairobi Securities Market.......................................41
LIST OF TABLES

Table 1: Average Abnormal Returns during the event window.........................26

Table 2: Cumulative Average Abnormal Returns during the Event Window........27
LIST OF FIGURES

Figure 1: Average Abnormal Returns during the Event Window.........................26

Figure 2 Cumulative Average Abnormal Return during the event period..............29
## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAR</td>
<td>Average Abnormal Return</td>
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<tr>
<td>AR</td>
<td>Abnormal Return</td>
</tr>
<tr>
<td>CAAR</td>
<td>Cumulative Average Abnormal Return</td>
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<tr>
<td>CDS</td>
<td>Central Depository System</td>
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<td>NSE</td>
<td>Nairobi Securities Exchange</td>
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<tr>
<td>P/E</td>
<td>Price to Earnings Ratio</td>
</tr>
<tr>
<td>EPS</td>
<td>Earnings Per Share</td>
</tr>
<tr>
<td>EMH</td>
<td>Efficient Market Hypothesis</td>
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</table>
CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Financial performance announcement is the process of producing statements that disclose an organization's financial status to the internal and external users of the information. The four basic reports are balance sheets, income statements, cash flow statements and statements of shareholders' equity. Financial reports are often prepared to cover a specific financial period. While some cover an entire year, other reports only cover a specific period, such as a quarterly report. Financial statements act as tools of communication on a firms' performance especially during the period under review, performance announcement provide a modest but not overwhelming amount of information to the market (Cheol, Resnick, & Sabherwal, 2012).

Fama (1970) described the role of capital markets to be the allocation of ownership of the economy's capital stock. The ideal efficient market is a market in which firms can make production-investment decisions and investors can choose among the securities that represent ownership of the firms' activities under the assumption that security prices at any time fully reflect all available information. A market in which prices always fully reflect available information is called an efficient market. Fama (1970) reviewed the theoretical and empirical literature on the efficient market model, and sought to clearly specify the process of price formation in an efficient market. Fama defined market efficiency in respect to how quickly the stock market reacts to announced public information and proposed three levels of market efficiency.
Nairobi securities Exchange market can be categorized as an emerging market within the frame work provided by the International Finance Corporation. Many emerging market economies at various times have undergone rapid growth and because their stock markets are not highly developed and therefore are less efficient, there is considerable opportunity for relatively high returns from emerging market investments. The dynamics in emerging market therefore present challenges for investors bearing in mind that share prices respond to events. The following are event classes, though not exhaustive, that are anticipated in security prices: earnings reports, product releases, and trade shows presentations, bonus issues, Initial Public Offer and dividend announcements (Mwaura, 2010).

1.1.1 Financial Performance Announcement

Financial reports pertaining to a firm can be used by different users for their own need. With Financial reports, information asymmetry would be reduced and hence communication between the firm and the users of its financial reports is made effective and smooth. Effective communication leads to lower agency cost. Publicly quoted companies are obliged to publish their audited financial statement at the end of every financial year. A Firm’s performance is of great importance to investors since it has a direct impact on returns to investment. It is therefore expected that upon release of financial reports, an efficient market should immediately absorb the information and adjust the stock prices accordingly (Cheol et al., 2012).

Investors are greatly benefited from the implementation of financial performance announcement which help them make informed decisions and predictions of the future
financial performance of the firm and gives quality accounting practices and transparency. It tends to reduce earnings manipulation and enhance stock market efficiency. Menike and Wang (2013) states that financial statements consist of different types of information; it can mainly be categorized into two parts; accounting information and non-accounting information. Accounting information is the information which describes an account for a utility. It processes financial transactions to provide external reporting to outside parties such as to stockholders, investors, creditors, and government agencies. Non-accounting information is information which cannot be measured in monetary terms in making investment decisions by the investors.

Given the importance of performance announcement, it is no surprise that company management has a vital interest in how they are reported and may decide to manage the earnings. Earnings management is defined as the manipulation of a company’s financial earnings either directly or indirectly through accounting techniques. This occurs when a company is unable to meet investors’ expectations or in periods of volatile earnings. Earnings management is primarily achieved by management’s actions to achieve desired earnings levels thus stock returns prompt earnings management (Cheol et al., 2012).

1.1.2 Share Returns

Stock prices change in stock markets on a daily basis. At times, it is easy to notice that stock prices appreciate every morning, and this may take place many times in one day for some stocks. This means that stock prices are determined by supply and demand forces, there is no foolproof system that indicates the exact movement of stock prices. However, the factors behind increase or decrease in the demand and/or supply of a particular stock
could include company fundamentals, external factors, and market behavior. Company fundamental factors influencing stock prices might include performance of the company, a change in board of directors, appointment of new management, and the creation of new assets, dividends and earnings. External factors might include government rules and regulations, inflation, and other economic conditions, investor behavior, market conditions, money supply, competition, uncontrolled natural or environmental circumstances directly affecting the production of the company and strikes. Moreover, the behavior of market participants could be an important influencing factor of stock price (Molodovsky, 1995)

Investors measure stock returns in order to judge the quality of their investments in both an absolute sense and to compare other investments in the same asset class. The most common measure for stocks is the price to earnings ratio (P/E). This measure, available in stock tables, takes the share price and divides it by a company’s annual net income. As a general rule of thumb, stocks with P/Es higher than the broader market P/E are considered expensive, while stocks with a below-market P/E are considered cheaper. Another useful ratio in looking at stocks is the earnings per share (EPS) ratio. It calculates the company’s earnings, the portion of a company’s profit allocated to each outstanding share of common stock. The calculation lets you see how much you benefit from holding each share. Other popular measures include the dividend yield, price-to-book and, sometimes, price-to-sales.
1.1.3 Financial Performance announcement and Share Returns

The announcements of accounting and financial results are very useful because they do not only give information on the firm itself but they also give indications of performance of similar companies. Investors generally are perceived to be value maximizing personalities. Therefore, positive earnings announcements should be associated with good and positive expectation while a negative earnings announcement is expected to generate bad and negative expectation. Owido et al., (2013) states that Prices of securities in the stock markets today react very quickly to new information and in anticipation of news before it is out in the public domain, this signifies informational efficiency as relevant information on securities is readily available for investors and their agents to evaluate prices correctly. This is essential for investor confidence in a market and helps channel investment funds to the highest valued securities.

The interpretation of the evidence that financial performance announcements initiate a strong share market response has been questioned (Bamber, Christensen, and Gaver, 2000). They further assert that most earnings announcements are not associated with unusual share price reactions. This is because annual financial disclosures are largely preempted by more timely sources of information such as the interim accounts, business news about a specific firm and financial results of closely competing firms thus the release of annual earnings has very little or no impact on share prices of the firm (Ball and Brown 1968).

Chemarum (2010) states that markets generally react when financial information is made available to investors, they note that there is always a change in the market on
announcement of financial information and the only difference is the path such change or reaction takes. Sometimes the reaction is positive which is indicated by a significant increase in the value of shares or in the volume of shares traded; while at other times it is negative, indicated by a reduction in the value and volume of shares traded.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange formerly known as Nairobi stock exchange was formed in 1954 as a voluntary organization of stock brokers and is now one of the most active capital markets in Africa. In July 2011, the Nairobi Stock Exchange Limited changed its name to the Nairobi Securities Exchange Limited. The securities exchange plays an important role in the process of economic development; it helps mobilize domestic savings thereby bringing about the reallocation of financial resources from dormant to active agents. Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares (Nairobi Securities Exchange, 2014).

Security exchange market is an organized market for buying and selling corporate and other securities. Security markets promote higher standards of accounting, resource management and transparency in the management of business, The stock exchange also improves the access to finance of different types of users by providing the flexibility for customization. Lastly the stock exchange provides investors with an efficient mechanism to liquidate their investments in securities. The very fact that investors are certain of the possibility of selling out what they hold, as and when they want, is a major incentive for
investment as it guarantees mobility of capital in the purchase of assets (Nairobi Securities Exchange, 2014).

1.2 Research problem

Fama (1970) states that in an efficient market, the security prices are presumed to reflect the effects of information based on past, current and future events. In an efficient market, any earnings or dividend announcement contains information which influences the stock prices positively or negatively. Investors use that information to make investment decision accordingly. However, the validity of the efficient markets hypothesis has been questioned through the emergence of behavioral finance by postulating that financial markets might fail to reflect economic fundamentals under a number of conditions which can result in significant and persistent biases (Subrahmanyam, 2007). Hirshleifer (2001) explained that investors are not always rational and may not correctly process all available information while forming their expectations of an asset’s future performance and, as such, trades could occur as a result of such irrationality.

It is challenging to test the market reactions to the financial performance announcement in emerging markets because emerging markets are characterized by a relatively large number of poorly informed and unsophisticated investors, low liquidity levels, weak legal, regulatory and institutional framework and operational bottlenecks (Osei, 2002). The NSE has and is still experiencing a lot of overreaction by irrational investors who either follow the herd mentality or have no basis for their buy or sell decisions. Individuals see a stock price rising and are drawn into the market in a kind of bandwagon effect, thus many irrational investors in Kenya, Companies report billions of shillings in
profit and many investors rush to buy their shares only to be issued with insufficient
returns as dividend at year end, not many stakeholders are well informed about
investment in the stock market in Kenya.

Menike and Wang (2013) states that the stock market reaction to financial performance
announcement has been tested in many occasions in developed markets such as the USA
and UK. The evidence reported in these studies is largely consistent with the information
content hypothesis and efficient market hypothesis. Foster, Olsen & Shevlin (1984) found
that stock price reaction to semi-annual earnings announcements yielded abnormal
returns during both the pre-announcement and post-announcement dates. They postulate
that an asymmetry response behavior exists with respect to positive and negative earnings
announcements. Locally, Kiremu (2013) carried out an event study examining the effect
of annual earnings announcement at the Nairobi Securities Exchange by analyzing
changes in share prices and trading volumes for the period from 2006 to 2010, it was
found that the N.S.E being of semi-strong efficiency, there was no significant impact of
the financial performance announcement to the stock prices of listed companies. Most
previous studies undertaken in this area on the Nairobi securities exchange have used the
annual returns, the researcher is not aware of any particular study in the recent past that
has used the interim reports, the study marked a departure from previous studies as it
used the quarterly financial announcements of firms listed on the Nairobi Securities
Exchange between 2010 and 2013, this is because annual financial announcements are
largely pre-empted by more timely sources of information such as the interim accounts,
business news about a specific firm and financial results of closely competing firms thus
the release of annual earnings has very little or no impact on share prices of the firm. In order to fill a gap in this area of interest, the researcher formulated a research question as follows: what is the effect of financial performance announcement on share returns of firms listed at the Nairobi securities exchange?

1.3 Research Objective

The objective of this study was to assess the effect of financial performance announcement on share returns of firms listed on the Nairobi securities Exchange.

1.4 Value of the Study

The study contributed to the general understanding of how financial performance announcement influences share price and hence value of the firms listed in the Nairobi securities Exchange. This study would help to sensitize organizations on the importance of financial performance announcement in determining the share price and value of the firm.

The evidence from analyzing share returns reaction to financial performance announcements in a developing and emerging market casts more light on whether the theory of efficient markets is supported, or contradicted by the various empirical findings.

This study also added more knowledge on the concept of financial performance announcement and shade more light on the relationship between financial performance announcement and stock price performance. This provided more literally material which
was of value to scholars, students and researchers. This study can also be used as a basis of further research.
2.1 Introduction

This chapter presents a theoretical review where theories concerning the relationship between share returns and financial performance announcement have been documented in the financial literature; the chapter also presents the empirical findings in different stock markets within the area of study and finally the summary of the literature review.

2.2 Theoretical Literature Review

Several theories concerning the relationship of share prices and financial statement information variables have been documented in the financial literature. The study on the impact of financial performance announcement on share returns incorporates the elements of market efficiency or inefficiency.

2.2.1 The Efficient Market Hypothesis (EMH)

Fama (1970) describes an efficient market as one where a large number of rational investors intent to maximize profit, compete with each other in trying to predict future values of individual securities, and one where current information is almost available to all participants. In an efficient market, the security prices are presumed to reflect the effects of information based on past, current and future events. The core idea behind the EMH is that stock prices should fully reflect all new and available information in an unbiased manner to the market participants. Such markets delivers accurate signals for resource apportionment as market prices represent each security’s basic worth, although
deviations can occur. Price adjustments are only expected to arise from the release of new information (Mabhunu, 2004).

Market efficiency purports that stock prices display a random walk pattern which implies that current or past share prices are of no help in predicting future prices, so the fact that a share’s price has risen or fallen does not mean that its next movement is likely to be up or down respectively. The efficient market hypothesis (EMH) states that investors cannot profit by trading on news reports and other public information, because the share prices adjust to information as soon as it is known. Furthermore, in an efficient market information gathering and information based trading is not profitable as all the available information is already known by the market. This may leave investors with no incentive as to the gathering and analyzing of information, for they begin to realize that market prices are an unbiased estimate of the shares’ basic worth (Mabhunu, 2004).

2.2.2 Signaling Theory

This theory was proposed by Brennan and Copeland in 1988. According to the signaling theory, financial information acted as a means of passing information from managers to stockholders. They built up the hypothesis from Fama et al. (1969), who suggested that by reporting, a company could reduce any information asymmetries that might have existed between stockholders and management. The signaling hypothesis suggests that financial performance announcement conveys new information to the market (Pathirawasam, 2009).
Arthurs, Busenitz, Hoskisson & Johnson (2009) discovered that signals have the effect of sensitizing the market and therefore affect investors’ decisions. Their findings supported the signaling theory. During the financial performance announcement, the signals before the announcement allow for the sensitization of the shareholders as well as other consumers. Positive results act as a signal that the company is doing well and vice-versa. According to signaling theory, also referred to as the information content hypothesis, corporate announcements are hypothesized to have information content, for example, managers use cash dividend announcement to signal changes in their expectation about the future prospect of the company when the markets are imperfect.

Pathirawasam, (2009) noted that the markets are rarely in equilibrium, that information has a cost and that it does not reach all at the same time. When a firm announces its earnings or dividends it sends a signal to the investor and if they react to this signal as expected this will affect the share prices of the listed company.

2.2.3 Random Walk Hypothesis

The theory was first introduced by Maurice Kendall in 1953, and then expanded by Professor Paul Cootner in 1964 and Professor Burton Malkiel in 1973; the theory is based on the belief that price behavior cannot be predicted because it does not act on any predictive fundamental or technical indicators. Under the random walk theory, there is an equal chance that a stock’s price will either rise or fall from current levels; Information about the companies is received at random intervals by the investors who read randomly to the information. Therefore, there is continuous trading of a security through buying and selling, security prices are therefore determined by a stochastic process where
security prices is continuously changing in relation to new information (Thomsett, 2011). Those who subscribe to the random walk theory rationalize that prices have to be random because the market is efficient and prices in all currently known facts and influences at each moment. However, MacKinley (1995) demonstrated that at least some degree of predictability is present in stocks based on a comparison between price behavior and other influences.

2.3 Empirical Literature Review

Eilisfen et al. (1999) found a significant reduction in stock price volatility in the post-announcement period relative to the pre-announcement period for companies traded on the Oslo Stock Exchange in the period 1990-1995. This was tested by relating the observed returns volatility to the changes in the volatility of the underlying business, the speed at which information is incorporated into the stock price and the amount of noise in the price process. In their statistical studies, the empirical results document no significant change in the intrinsic variances for small and large.

Nasar (2002) examined the share price reaction to the release of Financial Statements in the Stock Exchange of Saudi Arabia. The study empirically investigated the relationship between the share price reactions to the release of the annual financial statements by employing the market model. By using the five year data (1995 to 1999) with the event study methodology, the study revealed that the released financial statements influenced changing investors' behavior.
Mishra (2005) documents the market behavior around the bonus issue announcement date for the forty-six stocks listed in the National Stock Exchange of India over the period from 1994 to 2004 using standard market model event study methodology covering a period of twenty days before and after the event. One of the interesting findings was that on an average, the stock starts showing positive abnormal returns eight to nine days before the announcement date. This could be due to the leakage of the informational content.

Sponholtz (2005), using the event study method, examined the information content of annual earnings announcements in the Danish stock market. Utilizing data from 1999 to 2001, Sponholtz found significant abnormal price reactions in the period surrounding the announcements. Contrary to the EMH, the abnormal price reactions persist several days after the announcement, suggesting that the Danish stock market may not be informationally efficient.

Gupta (2008) performed an event study on 50 companies of the national stock exchange of India, which announced their quarterly earnings for the quarter ended March 31, 2004. Board meeting date was used as the event date and used a 61 event window, that is, 30 days before and 30 days after the event date. The sample was divided into good news and bad news announcements. In the good news sub sample, it was found that the stock prices turn positive 3 days before the announcement (t-3) and remain positive till 13 days after the event day (t+13) pointing out that Indian stock market is not semi-strong efficient.
Afego (2011) examined the nature and extent of stock market responsiveness to companies’ annual earnings information releases on the Nigerian stock exchange, using the event study, a sample of 16 firms listed on the exchange was tested, the results from the study suggested that stock price changes in Nigeria, with respect to earnings announcements, This finding contradicted the efficient markets hypothesis hence concluding the Nigerian stock market to be informationally inefficient.

Javid and Faraz (2011) examined the stock price reaction to earnings announcement at the emerging market at Karachi Stock Exchange in Pakistan. The even study used 5 year data on the stock prices from January 2004 to August 2008 for 114 non-financial firms. The study found that there is no abnormal return during the post earnings announcement period. Moreover this study provides evidence that there is a bigger element of surprise for bad news than for good news as the market reaction to bad news is stronger.

Sare et al. (2013) carried out a study to test the effect of earning announcement on share prices on the Ghana Stock Exchange. A sample of 19 listed companies was selected from which 57 observations of earnings announcements documented from 2009 to 2012 were collected for the study. The event study methodology was used to test the data and the findings suggest that earnings announcements contain important information on which investors rely on to make their investment decisions. The study observed that the market reacts to earnings announcements either positively or negatively depending on whether the news is about earnings increase or reduction.
Kiremu (2013) carried out an event study examining the effect of annual earnings announcement at the Nairobi Securities Exchange by analyzing changes in share prices and trading volumes for the period from 2006 to 2010, it was found that the N.S.E being of semi-strong efficiency, there was no significant impact of the financial reporting to the stock prices of listed companies.

Rono (2013) examined stock market reaction to annual earnings announcements using the most recent data from the Nairobi Securities Exchange (Kenya) and JSE Securities exchange (South Africa). The period of study is 1 January 2005, to 31 December, 2011. Using the event study methodology, it was found that there was no post earnings announcement drift observed over the next six months after the announcement. The results are consistent with the efficient market hypothesis.

2.4 Summary of Literature Review

From the review, various studies discussed in this chapter that are consistent with the information content hypothesis and efficient market hypothesis have been carried out based on annual returns and also mostly in developed markets, they include (Eilisfen et al. (1999); Kiremu (2013); Rono (2013). However, other studies mostly on emerging markets have questioned the validity of the efficient markets hypothesis as several recent studies have reported evidence that significant abnormal returns can be generated by trading on the basis of public information, they have also found evidence of slow post-announcement stock price adjustment to financial performance announcement, these are (Afego (2011) Sponholtz (2005), Gupta (2008)).
Therefore the contradictory research results have led to further research in investigating the effect of financial performance announcement on share returns for firms listed on the Nairobi securities exchange. This study provided new evidence on the relationship between interim financial performance announcement and share returns.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section provided the research methodology that was used in this study, it outlined the research design providing a description of event study methodology used, and it also provided the various researches that have utilized this methodology. It also entailed the sources of the data for the study, the population, the sampling method and criteria for the sample selection, and finally the data collection and analysis.

3.2 Research Design

A descriptive research design was employed in this study; furthermore, the standard event-study methodology was also employed in this study to assess the effect of financial performance announcement on share returns for firms on Nairobi Stock Exchange, The event study starts with the hypothesis on how a particular event affects the value of a firm (Serra, 2002). Event methodology is viewed as a powerful tool in efficient market hypothesis research and many researchers, for example, Fama, Fisher, Jensen and Roll (1969); Aga and Kocaman (2008) and Rono(2013) have successfully utilized the event study methodology to determine how share prices react to new information releases in the market. Ball and Kothari (1991) the market reaction to financial performance announcement is often determined either over a short term, medium term or long term periods, In this study, the short term period was used where the daily closing stock prices were analyzed to assess the effect of financial performance announcement on share returns for firms on Nairobi Stock Exchange.
3.3 Population of Study

The population comprised of 61 companies listed on the Nairobi securities Exchange between 2010 and 2013.

3.4 Sampling Design

A purposeful and judgmental sampling method was employed for the study. In order to be included in the target sample; only companies that had been listed and actively trading throughout the study period, Further, all companies whose event date could not be obtained were eliminated from the study. To eliminate the problem of confounding effects, all companies that had a major event during the event window were eliminated from the study. Since most companies announce their earnings and dividends during the same period, only companies with positive correlation between dividend announcement and earnings announcement were selected, this assisted in neutralizing the effects of dividend announcements. The final sample distribution was as follows: commercial and services (33.33%), industrial and allied (33.33%) then finance and investment (33.33%), 3 firms were selected and 3 events per firm for the period between 2010 and 2013 hence a total of 9 events were carried out for the entire study period. Appendix I shows a list of firms listed on the NSE during the study period and appendix II is statistical information of the sample during the event window.

3.5 Data Collection

The study used secondary data from the NSE relating to quarterly financial performance announcement, daily share prices and daily traded volumes covering all the days in the
event window for the period from 2010 to 2013. The earnings announcement dates and major events were identified by carefully studying the NSE hand book, the NSE daily trading information and the companies' newsletters, the period to be examined in detail for the purpose of the study is 21 days in length, consisting of the day of the release (day \(t=0\)), the 10 days immediately preceding the event day (day \(t=0\)) and 10 days immediately following it. Further the estimation window was set at 30 days before each financial performance announcement.

![Graph](asset:image.png)

3.6 Data Analysis

The market model was used to calculate abnormal returns because of its ability to differentiate between two kinds of events affecting share return like the market movement which affect the share price and the particular event to share is reflected in the abnormal return, furthermore, the models assumptions are statistically and empirically reasonable (MacKinlay, 1997).

Daily share return of each company is calculated according to the following equation.

\[ R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \]
Where

\[ R_{it} = \text{return on share }i\text{ on day }t \]

\[ P_{it} = \text{price of share }i\text{ on day }t \]

\[ P_{it-1} = \text{price of share }i\text{ on day }t-i \]

Daily expected return is estimated using the Market Model for each share as follows.

\[ E(\ R_{it}) = a + b(R_{mt}) \]

Where

\[ E(R_{it}) = \text{expected return on share }i\text{ on day }t \]

\[ R_{mt} = \text{return on the market on day }t \]

\[ a, b, \] = are parameters of the market model

The event was the financial performance announcement while the event date was the date of performance announcement and the event window included the event date. The period around the event date was used to aggregate abnormal returns on the individual stock. The abnormal return data was analyzed by Statistical Package for Social Sciences (SPSS). Data was analyzed by descriptive and inferential statistics and significance tested by T-test, the level of significance was set at 5%.

In order to test the market reaction to the announcement, the abnormal return was calculated at the time of the announcement, before and after announcement. It was
calculated as the difference between the actual return on share i on day t and the expected return on share i on day t according to the following equation.

\[ AR_{it} = R_{it} - E(R_{it}) \]

Where

\[ AR_{it} = \text{abnormal return on share i on day t} \]
\[ R_{it} = \text{return on share i on day t} \]
\[ E(R_{it}) = \text{expected return on share i on day t} \]

To generate the expected return by the market model, the Ordinary Least Square (OLS) technique was employed. A regression was run on the daily share return for each firm in the sample surrounding the release of its financial statements against the daily market return, as proxied by the market index for the corresponding calendar day.

The Abnormal return is the percentage of change in share price below or above what would normally be expected to occur. To improve the informativeness of the analysis of abnormal returns, the researcher averaged the abnormal returns across the observations for all events using the following equation.

\[ AAR_t = \frac{1}{N} \sum AR_{it} \]

Where

\[ AAR_t = \text{Average abnormal return at day t} \]
$N = \text{Number of events in the sample}$

$AR_{it} = \text{Abnormal return for share } i \text{ at day } t$

In order to make generalizations and to draw on overall inference for the market reactions to earnings announcement, the cumulative abnormal returns also be analyzed for the 21-day event window, from the start of the event period $t-10$ (day $-10$) up to time $t+10$ (day $+10$) as follows.

$CAAR_t = \sum_{i}^{k} AAR_t$

Where

$CAAR_t = \text{Cumulative abnormal return of day } t$

$\sum_{i}^{k} AAR_t = \text{Sum of Average abnormal return of day } t-10 \text{ to } t+10$

The CAARs for each stock is obtained by summing average abnormal returns over the event window.
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents the descriptive analysis of the study as well as the statistical analysis undertaken to test the effect of financial performance on share returns. Section 4.2 presents the analysis and significance tests for average abnormal returns, section 4.3 presents the analysis and significance tests for cumulative average abnormal returns and section 4.3 presents the discussion of the results.

4.2 Average Abnormal Returns during the Event Window

Abnormal returns are used to describe the returns generated by a given security or portfolio over a period of time which is different from the expected rate of return, the AAR is the average deviation of actual returns of a security from the expected returns.

The event window comprised of ten days before the announcement date and ten days after the announcement day, the AAR were obtained by calculating the daily average AAR for the sampled firms. To test for significance, the t-statistic for the AAR were obtained and tested at 5% level of significance as shown in table 1.

First, we plot the behavior of the average abnormal returns to show how financial announcement affected the share returns.
Figure 1 indicates that the average abnormal return tends to be positive 10 days prior to the announcement date except on day one, two, six, seven and eight, the AAR is positive ten days before the announcement but starts declining, there is mass fluctuation of the AAR throughout the pre-announcement period. It also indicates that the average abnormal return also tends to be positive after the announcement days except day one, two, five and ten. The value of average abnormal return was below one on all the days except day 10. This study shows the AAR was negative but not significant on the announcement day.

From table 1, the value of AAR during pre-announcement ranged from -0.489 to 0.834. The value of AAR during post announcement ranged from -0.617 to 1.092 while the value of AAR during the announcement date was -0.657. It was also observed that the
AAR was less than one during the event window except on day ten after the announcement; day ten recorded the highest abnormal return of 1.092 while the event day recorded the lowest abnormal return of -0.657.

Table 1: Average Abnormal Returns During the event window

<table>
<thead>
<tr>
<th>DAYS</th>
<th>AAR</th>
<th>P VALUE</th>
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<tr>
<td>-10</td>
<td>0.453</td>
<td>0.746</td>
</tr>
<tr>
<td>-9</td>
<td>0.223</td>
<td>0.874</td>
</tr>
<tr>
<td>-8</td>
<td>-0.406</td>
<td>0.773</td>
</tr>
<tr>
<td>-7</td>
<td>-0.489</td>
<td>0.728</td>
</tr>
<tr>
<td>-6</td>
<td>-0.187</td>
<td>0.894</td>
</tr>
<tr>
<td>-5</td>
<td>0.834</td>
<td>0.554</td>
</tr>
<tr>
<td>-4</td>
<td>0.083</td>
<td>0.953</td>
</tr>
<tr>
<td>-3</td>
<td>0.221</td>
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<td>-2</td>
<td>-0.443</td>
<td>0.752</td>
</tr>
<tr>
<td>-1</td>
<td>-0.161</td>
<td>0.908</td>
</tr>
<tr>
<td>-0</td>
<td>-0.657</td>
<td>0.640</td>
</tr>
<tr>
<td>1</td>
<td>-0.617</td>
<td>0.661</td>
</tr>
<tr>
<td>2</td>
<td>0.122</td>
<td>0.931</td>
</tr>
<tr>
<td>3</td>
<td>-0.366</td>
<td>0.794</td>
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<tr>
<td>4</td>
<td>0.184</td>
<td>0.896</td>
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<tr>
<td>5</td>
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<td>6</td>
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<td>7</td>
<td>0.226</td>
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<td>8</td>
<td>0.245</td>
<td>0.861</td>
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<tr>
<td>9</td>
<td>0.348</td>
<td>0.805</td>
</tr>
<tr>
<td>10</td>
<td>1.092</td>
<td>0.440</td>
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</table>

The results indicate negative but not significant results around the announcement date, that is, two days prior to the announcement, on the event day and one day after the announcement.

From the table all the days during the event window recorded a p-value that was greater than the significance level of 0.05 hence the insignificant abnormal return during the event window.
4.3 Cumulative Average Abnormal Returns during the Event Window

CAAR provides information about the average price behavior of securities during the event window. Information leakage sometimes complicates the event studies; this happens especially when information concerning a relevant event is released to a small group of investors before official public announcement which causes the stock prices to change prior to the announcement causing any abnormal returns on the event date to be a poor indicator of the total impact of the event. When this happens, cumulative abnormal returns are a better indicator of the impact.

Table 2: Cumulative Average Abnormal Returns during the Event Window

<table>
<thead>
<tr>
<th>DAYS</th>
<th>CAAR</th>
<th>P VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10</td>
<td>0.453</td>
<td>0.908</td>
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<tr>
<td>-9</td>
<td>0.676</td>
<td>0.799</td>
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<tr>
<td>-8</td>
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<td>-3</td>
<td>0.732</td>
<td>0.765</td>
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<tr>
<td>-2</td>
<td>0.289</td>
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<tr>
<td>-1</td>
<td>0.128</td>
<td>0.993</td>
</tr>
<tr>
<td>-0</td>
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<tr>
<td>1</td>
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<td>3</td>
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<td>5</td>
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<td>0.718</td>
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<tr>
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<td>0.727</td>
</tr>
<tr>
<td>7</td>
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<td>0.858</td>
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<tr>
<td>8</td>
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<td>0.954</td>
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<tr>
<td>9</td>
<td>0.027</td>
<td>1.000</td>
</tr>
<tr>
<td>10</td>
<td>1.119</td>
<td>0.488</td>
</tr>
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</table>
From table 2, the CAAR on the announcement day was -0.529. The highest value of CAAR during the pre-announcement period was 0.732 recorded on day three prior to the announcement while the highest CAAR during the post announcement period was 1.119 recorded on day ten.

The significance tests as shown in table 2 indicate that all the event days recorded a p-value greater than the 0.05 significance level implying that the CAAR was not significant throughout the event window.

The CAAR during the event window is also presented graphically as shown in figure 2.

Figure 2; Cumulative Average Abnormal Return during the event period

Figure 2 shows that the CAAR was positive 10 days before the announcement date except on day seven and six. It was observed that the CAAR starts declining steadily from day three prior to announcement up to the event date. This could be attributed to the
fact that the AAR earned during this period was mostly negative. However, the CAAR starts rising steadily three days after the announcement, probably because most of the AAR after the event day was positive. This trend could be interpreted to indicate that on the days before the earnings announcement date, the public anticipated that the announcement will contain some negative information. This is reflected by the decreasing CAAR on the days preceding the announcement. The CAAR however rose steadily after event day which implies that upon the announcement, the suspicions were eliminated leading to an increase in share price as reflected by the positive abnormal returns.

4.4 Discussion of Findings

The impact of an event is measured by use of abnormal returns at the moment the information is introduced into the market. The abnormal returns for each firm are calculated during the event window and statistical significance is used to determine the impact of the newly released information (Bodie et al., 2008). The insignificant positive AAR in the period surrounding the event date of the financial announcement suggests that investors anticipated make abnormal returns from the announcements.

Generally, these results are consistent with those of Das et al, (2008) who studied the effect of quarterly earnings announcements on the stock price movement of the firms constituting the BSE-Sensex and found the abnormal returns around the event date not significant irrespective of the quality of announcement. Thus the results of this study the share prices already reflect the information contained in the financial performance announcements thus giving no undue advantage to any investor, indicating that the
market is semi-strong efficient in relation to quarterly and interim financial announcement.
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of findings, conclusion, recommendations, limitations of the study and suggestions for further research.

5.2 Summary of Findings

The study sought to find out the effect of financial performance announcement on share returns of firms listed at the Nairobi securities exchange. This was achieved by analyzing the daily share prices of sampled firms and the daily market returns by computing the average abnormal returns and cumulative abnormal returns and testing the significance at 5% probability level. The results obtained indicate that the AAR was generally positive but not significant during the event window, the CAAR was generally positive but not significant during the pre-announcement period and generally negative but not significant during the post-announcement period.

5.3 Conclusion

The results of the study indicate that the AAR and CAAR around the event date were not significant. This implies that the information contained in the financial announcement is absorbed efficiently in the share prices eliminating any chances of traders earning abnormal returns around the event date. This is consistent with the EMH which states that
upon the event the price reaction to new information must be instantaneous and unbiased
leaving no room for investors to earn abnormal returns, Thus the NSE is semi strong
efficient in relation to quarterly financial earnings announcement.

5.4 Recommendations

The evidence presented in this study brings to fore a number of interesting issues which
indicates that a lot needs to be done, particularly by regulators and policy makers, to
address the challenges facing the security market in Kenya.

First, the researcher recommends that the regulatory authorities should intensify efforts to
ensure compliance to insider trading laws by market participants. The authorities need to
strengthen their capacity to effectively monitor activities in the market, and to effectively
deal with offenders.

Second, companies should be encouraged to ensure timely release of their financial
statements. Market regulators and policy makers need to impose penalties on companies
that delay the release of their results. According to Chambers and Penman (1984), firms
that do not announce earnings early, send negative signals to market participants, and this
may result in speculative investment behavior. Timely release of financial information
therefore is expected to help discourage unnecessary speculation by investors while it
attracts investors, boosts liquidity and helps improve the informational efficiency of the
stock market.
Third, measures should be taken to educate the public on the workings and benefits of participating in the securities markets in order to increase awareness about the market activity, attract an increased number of participants and also boost liquidity.

The security market should also be encouraged to maintain a record of the various event dates in a way that they are easily accessible so as to aid in event studies as opposed to the current way where these are not kept in a summarized form and a researcher has to search through so much information to extract the announcement dates.

5.5 Limitations of the Study

Given that this study is limited in scope to a single developing market, our results should be interpreted with caution.

Furthermore, given the relatively small sample size, the results should also be interpreted with caution. Future research therefore might be required to analyze a broader sample size in order to provide more comprehensive evidence.

5.6 Suggestions for Further Research

Finally, since the study was undertaken on a single developing market, further research is recommended to be carried out for other developing markets to ascertain the extent to which the findings from this study are generalizable.
Investigating share price response to other announcements like rights issue, stock splits and management change offers a potentially interesting avenue for future research in developing markets.

Lastly, analyzing the effect of financial announcement on share returns for specific industry can also be an interesting area for further research since a world event impacts differently each industry in terms of time and management, investors' behavior might vary according to the industry they are dealing with.
REFERENCES


### APPENDICIES

#### APPENDIX I: FIRMS LISTED ON THE NAIROBI SECURITIES MARKET

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<td>ARM Cement Ltd</td>
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<td>Total Kenya Ltd</td>
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41