

THE EFFECT OF THE EARNINGS ANNOUNCEMENTS ON THE STOCK PRICES
OF COMPANIES LISTED AT THE NAIROBI STOCK EXCHANGE

BY

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(D61/8426/2006)

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

SEPTEMBER 2010

DECLARATION

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

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DEDICATION

This project is dedicated in all sincerity to my wife, daughter and mother.

To my beloved wife Maryan Hassan, for her patience, understanding and support during the period I was doing the course.

To my daughter Rahma Mohamed, whose patience let the father complete the course.

To my Mother Halima Saed for her prayer and long waiting for a son gone in search of education.

ACKNOWLEDGEMENTS

The MBA project, by its nature, cannot be done by one person. Many individuals contributed directly or indirectly to the success of this project.

I would like to thank first and foremost my supervisor Miss Angela Kithinji for her invaluable comments, coaching and constructive criticism, constant guidance, patience, keen interest and encouragement which provided much needed support in my endeavor to undertake and complete this project. Many were the revisions made, but her patience was commendable. I acknowledge your effort and God bless you.

I am grateful to my MBA colleagues for their companionship and creating a supportive environment that made the MBA course enjoyable. My sincere thanks to my friends for the encouragement offered throughout my studies. My special thanks go to the teaching and support staff of the School of Business, University of Nairobi for creating an enabling environment for academic work.

I would also thank my family for their patience with me during the MBA course

Above all, great thanks to Almighty God for the strength and inspiration to overcome the challenges of the MBA program and various hardships of the life that I encountered during the course.

ABSTRACT

This study was undertaken a view of establishment whether earnings announcements effect the stock prices of the firms listed at the Nairobi Stock Exchange for the years from 2004 – 2008.

The objective of this is study was to determine whether earnings announcements generate abnormal returns and duration of abnormal returns of firms listed at the Nairobi stock exchange. Data extracted from NSE Daily stock and NSE handbook for the 2004 -2008 and was analyzed using SPSS with focus on comparing critical t-value with table t-value and was presented using tables and graphs. From the data analysis and resulting tables show that all companies sampled had an eventful earnings announcements. The graphs confirm a turning point in residual around the date of earnings announcements for most of the companies. The findings are that significant movements in return were observed periodically, pre and post earnings announcements. Most of the shares posted negative abnormal returns around the earnings announcements dates which shows how stock prices have reacted the earnings announcement event.

The above findings show that statistically negative abnormal returns were observed in the post and pre earnings announcements of firms listed at the Nairobi Stock Exchange. Given that a number of issues to be deliberated at earnings announcements are public information prior to earnings announcements and one would not expect revision in share prices that result into abnormal gains or losses. In which case abnormal gains or losses is only realizable if good or bad news emerges from the earnings announcements.

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ABBREVIATIONS

AAR	-	Average Abnormal Return
APT	-	Arbitrage pricing Theory
CAPM	-	Capital Asset Pricing Model
CAR	-	Cumulative abnormal Returns
CMA	-	Capital Market Authority
DASS	-	Computerized Delivery and Settlement System
EA	-	Earnings Announcements
EHM	-	Efficient Market Hypothesis
ICT	-	Information and Communication Technology
IFC	-	International Finance Cooperation
MAAR	-	Market Adjusted Abnormal Return
MS excel	-	Microsoft excel
NSE 20	-	Nairobi Stock Exchange 20 share index
NSE	-	Nairobi Stock Exchange
SML	-	Security Market Line
SPs	-	Stock Prices
SPSS	-	Statistical Package for Social Science
TVA	-	Trading Volume Activity

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The efficient market hypothesis was widely accepted by academic financial economists; for example, (Eugene Fama, 1970), it was generally believed that securities markets were extremely efficient in reflecting information about individual stocks and about the stock market as a whole. The accepted view was that when information arises, the news spreads very quickly and is incorporated into the prices of securities without delay. Thus, neither technical analysis, which is the study of past stock prices in an attempt to predict future prices, nor even fundamental analysis, which is the analysis of financial information such as company earnings, asset values, etc., to help investors select “undervalued” stocks, would enable an investor to achieve returns greater than those that could be obtained by holding a randomly selected portfolio of individual stocks with comparable risk.

Fama (1969) proposed three forms of efficient market hypothesis (EMH): strong form, semi-strong form, and weak form. Stock prices at any time fully reflect all available information, in the strong form, all public available information in the semi-strong form, and historical information in the weak form of Market Efficiency. EMH has two important implications: future stock prices are unpredictable, and expected stock returns can only be determined by rational asset pricing models such as the capital asset pricing model (CAPM), Arbitrage Pricing Theory (APT), the Fama-French three-factor model; or by the statistical market model.

The weak form efficient markets hypothesis maintains that past stock price changes cannot be used to earn above average profits because, this information is available to all, and thus, already incorporated in market price. Studies show that systems that try to

predict the future course of stock prices based upon some rule derived from the history (past days, weeks, or months) of past stock price changes do not make profit greater than a simple buy and hold strategy. Statistical analysis of successive stock price changes reveals that the correlation between price changes is approximately zero, Eugene (1986).

The semi-strong form efficient markets hypothesis maintains that all publicly available information is incorporated in stock prices. Studies show that public announcements of earnings, dividends, stock splits, etc. cause stock prices to immediately change to reflect the new information. Mutual funds (whose professional managers would be expected to have access to the very best information available) do not consistently outperform the average market indexes. The strong form of the efficient markets hypothesis, on the other hand maintains that all information obtainable from any source whatever is incorporated in market prices. Studies show that “inside information” available to corporate insiders or market specialists could be used to earn above average trading profits Yet, remember that using inside information is illegal!. Thus, strong form inefficient markets may not be legally exploited to earn greater than average profits (Fama 1969, 1971).

The efficient market hypothesis is associated with the idea of a “random walk,” which is a term loosely used in the finance literature to characterize a price series where all subsequent price changes represent random departures from previous prices.

The concept of the efficient market is one in which the marketplace uses information as soon as the information becomes available, and immediately evaluates all the effects of that information in setting asset prices. The information and its effects are not limited to factual information; the effect may exist only on the expectations of market participants. Because the efficient market hypothesis does not explicitly state a formula for valuing assets, the concept that changes in expectations can affect securities' values is compatible with the efficient market hypothesis (Grayson 2005).

In 1954 the Nairobi Stock Exchange was constituted as a voluntary association of stockbrokers registered under the Societies Act. Since Africans and Asians were not permitted to trade in securities until after the attainment of independence in 1963, the business of dealing in shares was then confined to the resident European community. At the dawn of independence, stock market activity slumped due to uncertainty about the future of independent Kenya. In 1988 there was the first privatization through the NSE the successful sale of a 20% government stake in Kenya Commercial Bank. The sale left the Government of Kenya and affiliated institutions retaining 80% ownership of the bank.

Notably, in 1994 the NSE 20-Share Index recorded an all-record high of 5030 points on February 18, 1994. The NSE was rated by the International Finance Corporation (IFC) as the best performing market in the world with a return of 179% in dollar terms. The NSE also moved to more spacious premises at the Nation Centre in July 1994, setting up a computerized delivery and settlement system (DASS). For the first time since the formation of the Nairobi Stock Exchange, the number of stockbrokers increased with the licensing of 8 new brokers.

Investors buy stocks for both the dividends they pay today and the possibility of a gain in a stock's selling price, at the same time no buyer is willing to pay more than publicly know CAPM price, and no seller would accept less than publicly known CAPM price. Security prices that fall below the security Market Line (SML) are said they are overpriced holders are willing to sell them like that when security prices plot above the SML they are under priced investors rush to buy until the price plot on the Security Market Line which is termed equilibrium price. Thus, the CAPM becomes a normative pricing model. In the capital asset pricing model (CAPM) formula, there is only one term which varies by security, so at least, according to the formula the price of an asset is determined by its covariance (which is measured by beta) how it moves relative to the market as a whole; nothing else matters, and nothing else can change the price relative to the market.

Security Market Line (SML) shows the relationship between risk and rate of return for individual security, the higher the risk the higher the requested return and vice versa (Brigham 1986).

Since earnings announcements convey new information to the stock market, an impending announcement has the potential to induce information asymmetry by making private information acquisition attractive to potential traders. Although market-makers will be aware of the high level of information asymmetry present in the market, it is likely that the asymmetry will not be entirely reflected in increased trades, for reasons such as legal prohibitions on trading or general uncertainty. The spread will therefore be affected by an increase in perceived adverse selection risk that is not reflected by an observable increase in volumes (Beaver, 1968).

Many studies on the semi-strong form efficiency of stock market are focused on the analysis of the information content of the annual earning and dividend announcements. The purpose of public disclosure announcements is to provide information that meets investors' needs for decision making. According to Fama (1991), in a sub-efficient market, the share price may fail to fully reflect all relevant information and abnormal returns may be obtained by taking advantage of public information because there is a significant time lag between announcement and full incorporation of the information.

There is no information content for the companies which report good news both on actual earning and earning forecast. Their announcement only causes small effect on stock price. There is no information content for the companies which report bad news on actual earning and good news on earning forecast. Their standard accumulated abnormal return shows a negative value but not significant (Landsman and Maydew, 2001).

Earning announcement only causes small effect on stock price. There is information content for companies which report good news both on actual earning and earning

forecast. Their standard accumulated abnormal returns show a significant negative value. There is information content for the companies which report bad news on both actual earning and earning forecast. Their standard accumulated abnormal return shows a significant negative value. Earning announcements contain relevant information to investors which are fully impounded in stock prices prior to or almost instantaneously at the time of announcement, Onyangoh (2004).

An event studies examines the average stock market reaction to a particular stock market event, by averaging across the same events in different companies or at different times in the same company. The event could be a macroeconomic event such as an interest rate announcement, or company specific events such as earnings announcements, directors trading announcements, merger announcements, and right issue announcements. Event studies examine the behavior of firms' stock prices around corporate events. In a corporate context, the usefulness of event studies arises from the fact that the magnitude of abnormal performance at the time of an event provides a measure of the (unanticipated) impact of this type of event on the wealth of the firms' claimholders. Thus, event studies focusing on announcement effects for a short-horizon around an event provide evidence relevant for understanding corporate policy decisions (Corrado, 1989).

The event date is referred to as date zero. To some extent the event may be anticipated, and this will weaken the power of the event study, since stock prices will have already reacted to some of the event before it has been announced, Brown and Warner (1980). Event study have become one of the most widely used empirical techniques in finance and accounting they are normally designed to detect abnormal price changes in financial assets in the time period around various events. Crucial to the process is the ability for the researcher to accurately determine what constitutes abnormal performance regardless of institutional settings. Although event study methods are well developed and often used to test financial theories, Fama et al, (1969).

1.2 Statement of the Problem

There is impressive body of empirical evidence which indicates effect of earnings announcements on stock prices of companies quoted at different Stock Exchanges in the world. Financial scholars and practitioners have long recognized that past earning announcements may provide valuable information between earnings announcements and stock prices on various stock exchanges. Several studies focus on effect of earning announcements on stock prices of different market in the world, Gupta (2006) and Kong and Taghavi (2006). These studies observed that the price reaction in the case of bad news is much larger than in case of good news. However Kong and Taghavi (2006) concluded a higher than expected earnings announcement leads to a rise in the conditional mean of the stock return on days before news announcement and fall afterwards.

In Kenya, available evidence documents a few of related studies. These include Onyangoh (2004), in his study, Stock Price responses to Earnings Announcements, sampled 16 companies out of 48 listed companies at the NSE covering the period 1998 – 2003. By use of cumulative average residuals, weekly share price indices are computed over 17 week windows period. The results of the study show that the earnings announcements contain relevant information to investors which are fully impounded in stock prices prior to or almost instantaneously at the time of announcement. Secondary evidence resulting from this study is the conclusion that NSE shows presence of semi strong model of EMH. This is contrary to early evidence adduced by the study of Ondigo (1995).

Ondigo (1995) studied the information content of annual reports for eighteen blue chip companies listed at NSE and the focus was on the behavior of share prices of before and after the release of the annual earning reports. The study concluded that on average, the annual reports of the sampled companies had no information content during the period of study.

Olouch (2003) in his study, the timing effect of earnings announcement on stock price on companies listed at the NSE, investigated if the delay in earnings announcement could be attributed to the of news reported and the effects of the reporting lag on share prices. It is found no relationship a firm's earning and timing of the release of the annual report. The study focused on the information content of annual report and accounts at NSE. Also his study was sampled eighteen blue chip companies leaving out listed leaving out listed companies with lower capitalization. The sample size of current study is comparatively bigger, and sought to apply event study approach across all segments of the capital market.

This study analyses daily stock prices for all the quoted companies distinguishing it from the earlier studies. This study will also use daily stock prices of most recent data from all listed companies at the NSE to reveal the effect of earnings announcements on stock prices which can bring a different result from (Onyangoh 2004) study. None of the past studies narrowed down the effect of earnings announcements on stock prices of firms listed at Nairobi Stock Exchange. Little is known about the effect of earnings announcements on stock prices therefore, this study will attempt to provide answers to the following question: What are the effects of earnings announcement on stock prices of companies quoted at Nairobi Stock Exchange.?

1.3 Objective of the study

The main objective of this study is to identify the impact of earning announcement on stock price of firms quoted at Nairobi Stock Exchange.

1. To determine whether earning announcement of the firms listed at the NSE generate abnormal returns.
2. To identify the duration of the effect of earnings announcements on security prices.

1.4 Significance of the Study

The results of this study will be significant in several ways. Most important is that the identification of the impact of earnings announcement on stock price. This research will indicate the level of importance attached to the earnings announcement event and companies practicing. It will provide information on the degree to which companies will be advised to adopt earnings policy.

This study will make a contribution to the academic literature on the field of role of earnings in the company value in Kenya where listed companies pay earnings or exercise earnings. The findings of this study will provide some insights to the companies who are currently announce earnings and role of earnings in company value. The finding of this study will assist companies to broaden their understanding in earnings announcement and role played in company valuation.

This study will use event study and design forms to collect data from Nairobi Stock Exchange to study the effect of earnings announcement on stock price. The target population will be all companies listed at the Nairobi stock Exchange that announce earnings at least once every year during the period of study (see appendix A).

CHAPTER TWO

LITERATURE REVIEW

2.1 *Introduction*

This chapter summarizes the information from other researchers that have carried out their research in the same field of study. The specific areas covered here are Efficient Market Theory, Pricing of securities at NSE, earning announcement, effect of earning announcement and event window study.

2.2 *The Efficient Market Theory*

The concept of the efficient market is one in which the marketplace uses information as soon as the information becomes available, and immediately evaluates all the effects of that information in setting asset prices. The information and its effects are not limited to factual information; the effect may exist only on the expectations of market participants. Because the efficient market hypothesis does not explicitly state a formula for valuing assets, the concept that changes in expectations can affect securities' values is compatible with the efficient market hypothesis.

In an efficient capital market, security prices fully reflect all available information in a rapid and unbiased fashion and thus provide unbiased estimates of the underlying values (Basu 1977), a market in which prices always fully reflect all available information is called efficient, (Fama 1970). The market efficiency hypothesis is a simple statement that assumes security prices fully reflect all available information, (Fama, 1991).

Fama (1970) identified three distinct levels or strengths at which a market might actually be efficient. The weak form of the efficient market hypothesis claims that prices fully reflect the information implicit in the sequence of past prices. The semi-strong form of the hypothesis asserts that prices reflect all relevant information that is publicly available,

while the strong form of market efficiency asserts information that is known to *any* participant is reflected in market prices.

2.2.1 Weak-form EMH

New information must by definition be unrelated to previous information; otherwise it would not be new. Share prices in response to the new information can not be predicted from the last movement or price, and development of the price assumes the characteristics of the random walk. In other words, the future price can not be predicted from study of historic prices. If market is weak-form efficient, there is no correlation between successive prices, so that excess returns can not consistently be achieved through the study of past price movements. This kind of study is called technical or chart analysis, because it is based on the study of the past price patterns without regard to any further background information.

2.2.2 Semi-strong form EMH

EMH stated that market is efficient if all relevant publicly available information is quickly reflected in the market price. The theory further states that the market will quickly digest the publication of relevant new information by moving the price to a new equilibrium level that reflects the change in supply and demand caused by emergence of that information. One problem with semi-strong form lies with identification of relevant publicly available information. In semi-strong market the current price is the best available unbiased predictor of a fair price having regard to all publicly available information about risk and return of an investment. The study of any public information cannot yield consistent excess return, because it means that fundamental analysis can not produce consistently higher returns than are justified by the risk involved.

2.2.3 Strong form EMH

Efficient Market Hypothesis states that a market is efficient if all information relevant to the value of a share, whether or not generally available to existing or potential investor, is quickly and accurately reflected in the market price. It is the most satisfying and compelling form of EMH in theoretical sense, but it suffers from one big drawback in practice. It is difficult to confirm empirically, as the necessary research would be unlikely to win the cooperation of the relevant section of the financial community (insider dealers).

Bernard and Thomas (1990) examined the evidence that stock prices do not fully reflect the implementations of current earnings for future earnings, they summarized that there is consistency that stock prices partially reflect a naïve earning expectation, the study documented abnormal returns around subsequent earnings announcements. Evidence presented here is consistence with a failure of stock prices to fully reflect the implication of current earnings for future earnings

Islam and Clark (2005), studied if emerging financial markets are efficient by investigating partial correlation function on stock returns during 1992 – 2001. The study observed that there is an autocorrelation on Thai stock Market especially during the post-crisis period concluding the emerging stock market is inefficient. The inefficiency is caused by a combination of the lack of its development and implication of the policy choices. The in efficiency of Thai stock market follows from violation of the necessary conditions for an efficient market with developed financial system and also implies financial and institutional imperfections.

Many empirical studies on the world capital markets tend to focus on the reaction speed of the market to important events or other new information. The principal role of stock market is to act as an intermediary between lenders and borrowers, market's primary

function is providing a central market place, pooling funds, and spreading the risk. In this study if earning announcement carry information which effect the price of stock traded at Nairobi Stock Exchange, according to that markets can be weak, semi-strong and strong form. In a semi-strong-form efficiency market, the yield should adjust instantaneously to unanticipated information. However, new information can also increase or reduce uncertainty in the market.

Kendall (1953) analyzes an economic time series by extracting from it a long-term movement, or trend, for separate study and then scrutinizing the residual portion for short-term oscillatory movements and random fluctuations. Kendall examined 22 UK stock and commodity price series, and concluded that in series of prices which are observed at fairly close intervals the random changes from one term to the next are so large as to swamp any systematic effect which may be present. The data behave almost like wandering series. The near-zero serial correlation of price changes was an observation that appeared inconsistent with the views of economists. Nevertheless, these empirical observations came to be labeled the “random walk model” or the “random walk theory”. If prices wander randomly, then this poses a major challenge to market analysts who try to predict the future path of security prices. Despite the emerging evidence on the randomness of stock price changes, there were occasional instances of anomalous price behavior, where certain series appeared to follow predictable paths.

Samuelson (1965), studied proof that properly anticipated prices fluctuate randomly, began with the observation that in competitive markets there is a buyer for every seller. If one could be sure that a price would rise, it would have already risen. Samuelson (1965) asserted that arguments like this are used to deduce that competitive prices must display price changes that perform a random walk with no predictable bias. Samuelson (1965) explains that we would expect investors in the market place, in pursuit of avid and intelligent self-interest, to take account of those elements of future events that in a probability sense may be discerned to be casting their shadows before them. Though his study proceeds from theory to empirical work, he notes that most of the empirical work

preceded development of the theory. The theory involves defining an efficient market as one in which trading on available information fails to provide an abnormal profit. A market can be deemed to be efficient, therefore, only if we posit a model for returns. From this point on, tests of market efficiency become joint tests of market behavior and models of asset pricing.

Fama (1970) summarizes the early random walk literature, his own contributions and other studies of the information contained in the historical sequence of prices, and concludes that the results are strongly in support of the weak form of market efficiency. The author concludes that in short, the evidence in support of the efficient markets model is extensive, and (somewhat uniquely in economics) contradictory evidence is sparse. He further observes that much remains to be done, and indeed, Fama (1991) subsequently returned to the fray with a reinterpretation of the efficient markets hypothesis in the light of subsequent research.

Kiio (2006) investigated if the Nairobi Stock Exchange is the semi strong level by looking at the speed of adjustment of share prices in cash earnings announcements between 2000 to 2004. The study used 21 day event window to capture the reaction over the period

The most frequently cited article on fund managers' performance was to be the detailed analysis of 115 mutual funds over the period 1955-64 undertaken by Jensen (1968). On a risk-adjusted basis, he finds that any advantage that the portfolio managers might have is consumed by fees and expenses. Even if investment management fees and loads are added back to performance measures, and returns are measured gross of management expenses (that is assuming research and other expenses were obtained free), Jensen (1968) concludes that "on average the funds apparently were not quite successful enough in their trading activities to recoup even their brokerage expenses." Fama (1991) summarizes a number of subsequent studies of mutual fund and institutional portfolio

manager's performance. Though some mutual funds have achieved minor abnormal gross returns before expenses, pension funds have underperformed passive benchmarks on a risk-adjusted basis. It is important to note that the efficient markets hypothesis does not rule out small abnormal returns, before fees and expenses. Analysts could therefore still have an incentive to acquire and act on valuable information, though investors would expect to receive no more than an average net return.

To make sense, the concept of market efficiency has to admit the possibility of minor market inefficiencies. The evidence accumulated during the 1960s and 1970s appeared to be broadly consistent with this view. While it was clear that markets cannot be completely efficient in the strong form, there was striking support for the weak and semi-strong forms and even for versions of strong form efficiency that focus on the performance on professional investment managers. The efficient markets hypothesis is simple in principle, but remains elusive. Evolving from an initially puzzling set of observations about the random character of security prices, it became the dominant paradigm in finance during the 1970s. During its heyday, the efficient markets hypothesis came to be supported by a growing body of empirical research demonstrating the difficulty of beating the market, whether by analyzing publicly available information or by employing professional investment advisors.

2.3 *Security Prices Behavior*

Empirical research in accounting and finance suggests that share prices do not follow a pure random walk and are likely comprised of the sum of a trend component and a stationary component (Fama and French, 1988; Poterba and Summers, 1988; Lipe and Kormendi, 1994; Zhou, 1996). To the extent that prices are related to earnings, this work implies that the time series process of earnings for individual firms is also comprised of these trend and stationary components.

A problem arises from the interaction of the EMH with a mechanical application of the CAPM. If CAPM and EMH are both correct simultaneously, then CAPM is how the market sets the price, and everybody knows the correct price. Any movement away from this price must be interpreted as miss pricing. If this miss pricing occurs in an efficient market, then sophisticated market participants can be expected to buy or sell as necessary to force the security's price back to its theoretically "correct" price. No buyer would pay more than the publicly known CAPM price, and no seller would accept less than the publicly known CAPM price. That is not what is observed to happen in reality. The present paradigm of how capital markets value assets consists of a combination of the capital asset pricing model (CAPM) plus the efficient market hypothesis (EMH). The capital asset pricing model is a normative model for the valuation of an asset. The efficient market hypothesis addresses the speed with which prices change

Given an initial price observed in the market, the expected return during a period can be translated into the equilibrium price of the risky asset (Copeland and Weston 1979, 170). Thus, the CAPM becomes a normative pricing model. In the capital asset pricing model (CAPM) formula, there is only one term which varies by security, so--at least, according to the formula – the price of an asset is determined by its covariance (which is measured by beta) --how it moves relative to the market as a whole; nothing else matters, and nothing else can change the price relative to the market.

2.4 *Earnings Announcements*

Ball and Brown (1968) had already noted evidence of post-earnings announcement "drift" in the direction indicated by an earnings surprise. Ten years later, the first published paper to draw together literature on earnings-related anomalies was the survey by Ball (1978). He summarized twenty studies of earnings and dividends, and concluded that the collective evidence of anomalous behavior was strong. This study examines properties of daily stock returns and how the particular characteristics of these data affect

event study methodologies for assessing the share price impact of firm-specific events. The use of daily data in event studies involves a number of potentially important problems. These can be summarized as follows. The daily stock return for an individual security exhibits substantial departures from normality that are not observed with weekly or monthly data. The evidence generally suggests that distributions of daily returns are fat-tailed relative to a normal distribution (Fama 1976). The same holds true for daily excess returns.

Halsey (2000), find that stock prices rise above and fall below their long-term trend contemporaneously with similar patterns in reported earnings. Cyclical fluctuations are several periods in length; they do not appear to represent short-term accrual reversals, but rather longer-term deviations of prices and earnings from their respective trend values. Earnings rise above and fall below their long-term trend and these fluctuations appear to be associated with similar variations in stock price. Furthermore, evidence suggests that earnings cycles are associated only in part with general economic activity.

Cyclical variations in earnings and stock prices appear to also reflect individual firm characteristics of a longer duration than short-term accrual reversals.

2.5 *Event Study*

The first event study was undertaken by Fama, Fisher, Jensen and Roll (1969), though the first to be published was by Ball and Brown (1968). Using the market model or capital asset pricing model as the benchmark, these event studies provide evidence on the reaction of share prices to stock splits and earnings announcements respectively. In both cases, the market appears to anticipate the information, and most of the price adjustment is complete before the event is revealed to the market. When news is released, the remaining price adjustment takes place rapidly and accurately. The Fama, Fisher, Jensen and Roll study, in particular, demonstrates that prices reflect not only direct estimates of

prospective performance by the sample companies, but also information that requires more subtle interpretation.

Event studies examine the behavior of firms' stock prices around corporate events. A vast literature written over the past several decades has become an important part of financial economics. Prior to that time, "there was little evidence on the central issues of corporate finance. In a corporate context, the usefulness of event studies arises from the fact that the magnitude of abnormal performance at the time of an event provides a measure of the (unanticipated) impact of this type of event on the wealth of the firms' claimholders. Thus, event studies focusing on announcement effects for a short-horizon around an event provide evidence relevant for understanding corporate policy decisions.

Event study using daily data can be meaningfully performing on a small exchange provided that certain adjustments are made to account for the problem caused by very thin trading, (Bartholdy and Olson, 2006).

Event studies also serve an important purpose in capital market research as a way of testing market efficiency. Systematically nonzero abnormal security returns that persist after a particular type of corporate event are inconsistent with market efficiency. Accordingly, event studies focusing on long-horizons following an event can provide key evidence on market efficiency (Brown and Warner, 1980, and Fama, 1991).

Event studies are useful in related areas. For example, in the accounting literature, the effect of earnings announcements on stock prices has received much attention. In the field of law and economics, event studies are used to examine the effect of regulation, as well as to assess damages in legal liability cases. The number of published event studies is increasing, and continues to grow. A second and parallel literature, which concentrates on the methodology of event studies, began in the 1980's.

From the methodology papers, much is known about how to do – and how not to do – an event study. While the profession’s thinking about event study methods has evolved over time, there seems to be relatively little controversy about statistical properties of event study methods. The conditions under which event studies provide information and permit reliable inferences are well-understood.

Cowles (1933) found that there was no discernable evidence of any ability to outguess the market. Subsequently, Cowles (1944) provided corroborative results for a large number of forecasts over a much longer sample period. By the 1940s, there was therefore scattered evidence in favor of the weak and strong form efficiency of the market, though these terms were not yet in use. Studies of the semi-strong form of the efficient markets hypothesis can be categorized as tests of the speed of adjustment of prices to new information. The principal research tool in this area is the event study. An event study averages the cumulative performance of stocks over time, from a specified number of time periods before an event to a specified number of periods after. Performance for each stock is measured after adjusting for market-wide movements in security prices.

Scholes (1972) study of the price effects of secondary offerings; he examines stock price movements when the seller may be in possession of non-public information. On average, share prices fall by an amount that reflects the value of this information. The impact of a secondary distribution on the stock price is largely unaffected by the size of the transaction, which confirms the depth of the market and the substitutability of one security for another. Note, however, that there is some indication of post-event price drift, which may constitute a violation of market efficiency.

2.6 *Effect of Earnings Announcement*

Earnings announcement effects the stock price of the firms because of the information content, if the information is good news that this year’s earning is higher than last year’s

earning or the company is forecasting that next year's earning will be higher than this year, this may bring the stock price of the company to change. When the information contains bad message like current year's earning is lower than last year or earning forecasted for next year is lower than usual, than the expectation of investors will change and company stock price may go down. Also late announcement of earning can convey bad news because while early release of earning information can convey good news, when saying early or late means earlier or later than the time earning information was released last year. Investor expect that earning announcement to be released same time every year and earning amount is higher or equal to last earnings announcement.

Kim and Verrecchia (1991) show that announcement is positively related to the precision of the announced (new) information, and negatively related to the precision of the preannouncement information. If earnings reports cease to capture information at the end of the fiscal quarter to which they pertain, their information content declines the farther away their timing is from the fiscal quarter end. Unless the earnings number captures information that becomes known to managers after the fiscal quarter end, it will be less informative as this time lag increases due to mitigation of the new information by the precision and amount of the preannouncement information. The study provide evidence that earnings lose their informativeness as this time lag increases, and that such information mitigation is relatively more pronounced for smaller firms.

Needham Jones and Frank Bacon (2007) study the effect of announcement of quarterly earning surprises on stock price's risk adjusted rate of return for 50 randomly selected firms. The study analyzed 11,183 observations using standard risk adjusted event study. When a firm announces positive surprise earnings, investors appear a positive signal about the firm's future which causes and increase in the firm's stock price. This study's results suggest that positive surprise earnings announcement do indeed send a positive signal about the profitability and future success of a firm. As a result of this positive signal, stock prices do increase and market reacts quickly to available information.

Eilifsen, Knivsfla and Sættem (2001) find a significant reduction in stock price volatility in the post announcement period relative to pre-announcement period for companies traded on the Oslo Stock Exchange in the period 1990 – 1995. Potential explanations for this phenomenon are tested by relating the observed return volatility to changes in the volatility of underlying business, the speed at which the information is incorporated into stock prices, and amount of noise in the price process. They concluded that there is significant decline in the noise term for the largest companies after the earnings release date, supporting the hypothesis that earnings announcements reduce informational asymmetries among investors.

Brooks, Patel, and Su (2003) explicitly examine unanticipated news announcements, in particular, 21 catastrophic events during 1989-1992. They find wide spreads and high volume and volatility after the unanticipated announcement. However, Brooks et al. (2003), do not compare unanticipated events to anticipated events, examine depth or adverse selection, nor attempt to separate content from timing effects. The study explicitly performs these tasks, which also allow comparing and contrasting the theoretical implications from asymmetric information models. Only after earning report is released investors might purchase or sale securities. Research done by Beaver (1968), shows the relationship between interim and annual earning announcements and stock market behavior. His argument was there should be increased security return availability associated with release of financial statements if at all the statements have any information. The research sampled 143 companies and observed the information content of quarterly earning announcement for the period 1961 – 1965. He used trading volume activity (TVA) and market model to test the information content of interim and annual reports, the test revealed a drastic increase in trading volume and a high variability in stock return in 17 weeks surrounding the announcement date. His conclusion was that the earning reports have information content which could effect the stock prices.

Landsman and Maydew (2001) revisited Beaver (1968) seminal paper examining the information content in earning announcement by using Beaver's two information content

measures: abnormal trading volume and stock price volatility. They studied a random sample of Compusta firms over the period 1972-998. They concluded their study that there is evidence of a decline in the informativeness of accounting information over the past thirty years, as measured by both abnormal trading volume and return volatility around quarterly earning announcements.

Ball and Brown (1968) examined the behavior of stock return within 12 months up to earnings announcement date for 8 years 1957 – 1965. They intend to determine the time and information content of accounting numbers; they selected a sample of 261 companies from New York Stock Exchange and classified them into two groups for each year of study, that is, companies whose earning increased. They noted that the stock returns of firms whose earning decreased had negative abnormal returns of 11.3% while the firm whose earning increased had a positive abnormal return of 5.6%. They concluded that the year's income number captures 50% or more of the information about firm's availability during a year.

Kong and Taghavi (2006) examine the annual earnings announcement effect of the markets in China. The investigation is based on events analysis and carried out by modeling the daily changes of stock returns using the M-EGARCH approach, by testing the news effect of annual earnings announcement on the conditional means of abnormal return and the variance of the returns. It is found that a higher than expected earnings announcement leads to rise in the conditional mean of the stock returns on days before the news announcement and a fall afterwards. The conditional volatility of the changes is significantly reduced by bigger absolute values of reported earnings before the news announcement and increase afterwards, supporting the rejection of semi-strong-form efficiency. Finally, and more importantly, using the model study can examine and evaluate the effects of announcement news on the conditional volatility of the abnormal return changes in the event window. The exact value of the variance in response to the news, higher volatility due to good news or bad news and asymmetric reactions towards good and bad news are also offered by the model.

Kaul and Estimates (2007) examined the effects on stock prices when companies provided earnings preannouncements versus when earnings surprises occurred. The data was divided into two categories positive preannouncement (surprise or preannouncements) and negative preannouncements (surprise or preannouncements). Positive preannouncements resulted in an upward price movement 70% of the times, and average price change was 5.19% rise. Negative preannouncements resulted in a downward price movement 73% of the times, and average price change was a 7.43% drop. The study concluded companies tended to fare significantly better when they provided positive preannouncements.

Gupta (2006) in his study, Impact of earnings Announcements on stock prices, investigates the stock market reaction associated with earning announcements in the Indian market, and to verify whether these announcements possess any information value. The Average Abnormal Return (AAR) for good news is greater than zero on the announcements day. The AAR is less than zero on the announcement day for the bad news. It has been observed the price reaction in the case of bad news is much larger than in the case of good news. The results of study indicate that earning announcements contain important information which causes stock prices to change.

This study is similar to the study done by Gupta (2006) using an event study by testing 50 companies in India comprising CNX Nifty Index which made earning announcement in March 2004, concluding that earnings announcements contain important information which cause stock price to change. and Kong and Taghavi (2006) examining the annual earnings announcement effect of the stock Markets in China concluding that a higher than expected earnings announcement leads to a rise in the conditional mean of stock returns on days before news announcement and fall afterwards, supporting the rejection of semi-strong-form efficiency.

Olouch (2003) findings indicated no systematic relationship between a firm's earnings (whether good or bad) and the timing of the release of the annual reports. This study contradicts early study conducted by Linsheng (1989) about time lag.

Most studies at the NSE have investigated timing effect, information content and stock price reaction, therefore, a need for alternative study to give insights into how earnings announcement effect stock prices.

2.7 Studies on Nairobi Stock Exchange

The studies which have been done on the Nairobi Stock Exchange are many, which among them include Munga (1974), Omosa (1989), Lishenga (1989), Kerandi (1993), Ondigo (1995), Iminiza (1997), Nyamute (1998), Murithii (2001), Olouch (2003), Rioba (2004) and others.

Munga (1974) studied the history, organization and role of NSE in the Kenyan economy. He found the NSE to be characterized by high illiquidity and low turnover.

Omosa (1989) studied the predictive ability of asset pricing models on the NSE and found that the models were not generally good predictors of prices due to what she argues to be inefficiency of the models or imperfection in the market.

In her study of the relationship between corporate attributes and timeliness of annual reports of companies listed at the NSE, Lishenga (1989), found evidence that there is tendency for less profitable companies to delay in reporting. In his research, timeliness was defined as the time lag occurring between the balance sheet date and earnings announcements date.

Kerandi (1993) tested the predictive ability of the dividend valuation model in the Nairobi Stock Exchange. He finds that the models have less predictive ability in the NSE. He collected data in form of shares prices, market indices and dividend per share. These were used to predict the price for the companies studied. Predicted prices were compared with actual prices and tested for significance of differences. The researcher was interested in confirming whether share prices can be predicted, implying that investors could be interested in correctly priced shares. It is argued in finance literature that a stock can be miss-priced and still generate attractive return for investors. A necessary condition is that the price be consistently miss-priced.

An empirical test on the information content of annual reports and accounts of companies listed in the Nairobi Stock Exchange was done by Ondigo (1995). His study was based on 18 blue chip companies and the focus was on the behavior of share prices of before and after the release of the annual earning reports. The study concluded that on average, the annual reports of the sampled companies had no information content during the period of study. One possible explanation of the findings such that the share prices before and after earning announcements have already adjusted to most of the information contained in the fourth coming annual reports. This can only be confirmed by a research on an unexpected share prices changes during the period shortly preceding the earning announcements date.

Olouch (2003) studies the timing effect of earning announcement on stock returns of companies listed at the Nairobi Stock Exchange, the findings indicated no systematic relationship between a firm's earnings (whether good or bad) and the timing of the release of the annual reports. This implies that companies listed on NSE do not deliberately delay the announcement of poor results, an indication that there may be other factors explaining the delay on reporting. However, the findings tend contradict early research done on time lag, for example a similar study conducted by Lishanga (1989).

In recent study, Rioba (2003) evaluated the predictability of ordinary stock price returns at the Nairobi Stock Exchange in Kenya. The result of the study on a sample of 10

randomly selected companies covering the period January 1995 to December 2002, evidenced that short term changes in stock market indexes may well be influenced by investor psychology. Study was concluded that the predictability evidence for ordinary shares in the NSE is weak and not definitive.

2.7.1 Conclusion of Literature Review

The above literature review sheds light on the effect of earnings announcements on the stock prices of the Companies listed at the NSE. However, these studies were mainly confined to advanced countries, and very limited evidence is available on announcement effects in Kenya. The researcher intends to study aspects of effects of earnings announcement in stock prices in terms of existence of excess or zero returns in the event period and therefore, contribute to filling that gap in knowledge in the NSE.

None of the above study addresses the Effect of the Earning Announcement on Stock prices of Companies listed at the Nairobi Stock Exchange

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 *Introduction*

The chapter outlines the research methodology adopted in order to meet the objectives of the study and why the chosen method is most appropriate. Included here are research design, population and sample, data collection and data analyses and presentation giving an insight of what to expect during the fieldwork and analysis of data.

3.2 *Research design*

This research is an event study carried out to analysis the effect of earnings announcements on stock prices of companies listed at the Nairobi Stock Exchange with form designed for that purpose to measure cumulative abnormal returns.

In this research, a descriptive survey design of quantitative method of data collection was adopted which is appropriate in collecting information from entire members of the population. A survey design method of research would go into deep examination of the effect of earnings announcement on stock price of the companies listed at Nairobi Stock Exchange. Descriptive study describes the relationship between the independent variables Earnings Announcements (EA) and dependent variable Stock prices (SPs). Secondary data was collected from Nairobi Stock Exchange to compare and generalize the result to the population. t-value was estimated to test the significance between the abnormal return and market return at NSE. In order to study the effect of earnings announcements on stock price data was collected from firms listed in Nairobi Stock Exchange during the period of study.

3.3 *Population and Sample*

The population of the study was all companies listed at the Nairobi Stock Exchange which announce earnings at least once a year. Listed firms were preferred over non listed firms because the yearly audited financial statements of listed companies are available at NSE while for non listed companies one has to call at each company's office to get that data.

The population of interest is all companies quoted in the Nairobi Stock Exchange that had been listed in the NSE as at 1st January 2004 till 31st December 2008. This being the most recent period, it is believed that the result based on the period would be reflective of the current development in the stock market.

To qualify for the population, the company must at least have:

- ✓ Been listed in the NSE for five years from 2004 to 2008.
- ✓ Annual reports and accounts and the announcements dates available for the period of study.
- ✓ Daily stock values for at least 3 months period preceding and succeeding the earning announcement dates.

3.4 *Data Collection*

Secondary data is used in the research which was obtained from Nairobi Stock Exchange database. Forms are designed to collect the data for the period of interest (see the data collection form attached).

The following data was collected from NSE:-

- ✓ Annual earning for the sampled companies and dates of earnings announcements.
- ✓ Daily stock prices for selected companies for two months.
- ✓ Daily NSE 20 share index for the research period.

The annual earnings were obtained from annual reports and accounts of the sampled companies. Dates of earning announcements means the day the report are publicly announced either through the media or any other means. Earnings reported by listed companies are audited by independent auditor.

The study relies entirely on secondary data, which was collected from the financial statements of NSE Hand book, daily stock prices of the listed companies and other sources from NSE. Data collection forms (Appendix B) was used to aid in the retrieval of data for individual companies. The data that was collected will comprise of daily stock prices, earnings and announcements dates for all companies included in the study for the five year period 01/2004 – 12/2008.

3.5 Data Analysis and Presentation

Statistical Package for Social Science (SPSS) was used as an aid in the analysis. The researcher prefers SPSS because of its ability to cover a wide range of the most common statistical and graphical data analysis and is very systematic. SPSS was used to generate market returns, abnormal returns and statistical values to test significance. Tables and graphical presentations as appropriate will also be used to present the data collected for ease of understanding and analysis.

3.5.1 *Stock market return*

Effect of earnings announcements on stock prices has evaluated stock prices after adjusting the influence of general market. Traditional market model was used for that purpose.

In order to study the impact of earnings announcement on stock prices the following two measures was used: (i) daily market-adjusted abnormal return (MAAR) and (ii) daily cumulative abnormal return (CAR). MAAR indicates the relative daily percentage price change in the earning paying stocks compared to the change in average market price. We use NSE 20 share index as the proxy of average market price. MAAR is calculated as follows:

$$R_{it} = (P_{it} - P_{it-1})/P_{it-1} \dots\dots\dots (1)$$

Where, R_{it} is the time t returns on security i , calculated as $(P_{it} - P_{it-1})/P_{it-1}$. Where, P_{it} is the market closing price of stock i on day t . P_{it-1} is the market closing price of stock i on day $t-1$.

$$R_{mt} = (I_t - I_{t-1})/I_{t-1} \dots\dots\dots (2)$$

Where, R_{mt} is the time t return on the DSE all-share price index calculated as $(I_t - I_{t-1})/I_{t-1}$. Where, I_t is the market index on day t . I_{t-1} is the market index on day $t-1$.

$$MAAR_{it} = R_{it} - R_{mt} \dots\dots\dots (3)$$

Where,

$MAAR_{it}$ is the market adjusted abnormal return for security i over time t

The market adjusted abnormal return (MAAR) shows the change in individual stock's value due to the earnings announcement. As the percentage change in market index (average market price) is deducted, the remainder gives us the unsystematic portion of the value change, which is specific to that particular stock resulting from its earnings announcement. MAAR is calculated over a period starting to -30 days to +30 days relative to the earnings announcement day (0-day). The second measure used is cumulative abnormal returns (CAR), which measures the investors' total return over a period starting from well before the announcement of earnings to well after the earnings announcement day. We use a 61-day window period starting from -30-day to +30-day relative to the earnings announcement day (0-day). CAR is computed as follows:

$$CAR_t = \sum_{t=1}^{t=j} MAAR_t \dots\dots\dots (4)$$

Finally, we will use parametric test to determine the statistical significance of market adjusted average abnormal return of earnings announcement over the window period (-30 day to +30 day relative to earnings announcement). The t-statistics was calculated cross-sectional by using the standard deviation of abnormal returns of the portfolio of 55 earnings announcing firms. Moreover, *t-test* suggested in Brown and Warner (1980, p. 251- 252) is also applied to test the statistical significance of the cumulative abnormal returns.

Our dependent variable is the earnings announcement the sum of abnormal returns on the day before the announcement and the last day of the succeeding period after the announcement.

3.6 *Reliability and Validity of data*

According to Nachmias & Nachmias (1996), validity of an instrument is the degree to which an instrument measures what it is supposed to measure and consequently permits appropriate interpretation of scores. Before the research instrument is administered to the sample members, there was a need to validate it. To establish the validity of the research instrument the researcher will seek opinions of experts in the field of study especially researcher's supervisor and lecturers.

Once a test is valid, it is reliable but a test may be reliable even if it is not valid. According to Mugenda and Mugenda (2003), reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. Reliability refers to consistency of measurement and is frequently assessed using the test-retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF THE RESULTS

4.1 Introduction

The objective of this study is to analysis the existence and duration of abnormal returns that resulted the effect of earnings announcements on stock prices of firms listed at the Nairobi Stock Exchange, which required collection of data from firms selected which were listed during the period under study. The chapter presents and discusses the findings of the study, using 45 firms reviewed over the period 2004 to 2008.

This research was an event study carried out to determine the effect of earnings announcements on stock prices of companies listed at the Nairobi Stock Exchange, which aimed at determining the abnormal returns generated by earnings announcements on the value of the shares at NSE, investigating markets reaction to information content of earnings announcements of companies listed at NSE and to identify the duration of the effect of earnings announcements on security prices.

The population of the study comprised of all companies that have been continuously listed in Nairobi Stock Exchange as at January 2004 to December 2008 and which announce earnings at least once a year. The data used for this study comprised of daily stock prices, earnings announcements dates for all companies included in the study for the five year period 01/2004 – 12/2008 and NSE-20 share index.

This study defines the period to be studied (2004 – 2008) and determine the precise day of announcement of the earnings and make this as day zero. In this research 30 days before the announcement and 30 days after the announcements was studied to compute daily abnormal positive or negative returns for all firms listed at Nairobi Stock Exchange during the period under investigation. Daily returns was calculated by using models mentioned in the research methodology to find out actual daily returns and compare using estimated daily market returns for the same period to generate abnormal returns for each day for event window of 61 days.

The research expects that the magnitude of the effect of earnings announcements to vary across the firms because such announcements made by the firms in different industries at different times. In which case, it is useful examining individual firm behavior. For summary of analysis of return and cumulative abnormal returns (see appendix D).

Analysis of the findings was done using Microsoft Excel and SPSS. Excel was used in the data compilation while SPSS was used for final statistical data analysis. Parametric t-test was used to determine the statistical significance of market adjusted average abnormal return (MAAR) and Cumulative Abnormal Return (CAR) of earnings announcement over the window period (-30day to +30 day relative to earnings announcement).

4.2 Selection for Listed Firms

Table 1 presents the sample selection criteria and data filtering process of firms used in the study. There are a total of 45 firms continually listed at the Nairobi Stock Exchange from the year 2004 to 2008. Companies listed after 2004 or suspended during this period were excluded from the analysis. These included Access Kenya, Centum Investment, Eveready, Kenya Re, Scangroup, Equity Bank, KenGen, Uchumi Supermakets and Hutchings Biemer. The number of firms that had made earnings announcements varied

by year as shown in the table below. The total number of companies examined from 2004 to 2008 totaled 225.

Table 1: Listed firms by sector per year

Year	2004	2005	2006	2007	2008	Total
Listed by Sector						Observations
Agriculture	4	4	4	4	4	20
Commercial and Service	8	9	11	11	12	41
Finance and Investment	11	12	13	13	15	54
Industrial and Allied	16	18	18	18	17	87
Alternative Market	8	9	8	8	8	33
Total Listed	47	52	54	54	56	235
# Continually Listed Firms	45	45	45	45	45	225

Source: Nairobi Stock Exchange Handbook.

The study is trying to analysis and determine the effect of earnings announcements on stock prices of firms listed at Nairobi Stock Exchange for a period of five years, data obtained from firms listed less then five years cannot service and satisfy the purpose of study, therefore, any firm listed after 2004 or stop listing during this period of five years (before 2008) were excluded for the selection. In this case the above table summarizes the listed companies by sector and by year to show how many suspended and how many joined after 2004, for that reason only 45 firms qualified to be selected to be part of the study.

4.3 Market Adjusted Abnormal Return

Appendix C presents the Market Adjusted Abnormal Return from 30 days before and 30 days after announcements for the earnings announcing firms. The event being studied is

the earnings announcements and their effect on share prices. The author therefore examines the returns before and after the earnings announcements. The day of announcement is denoted as day zero.

This section is presentation of detailed data analyses that was carried out and includes the findings of the research. The study proceed to test for the effect of earnings announcements on stock prices of listed firms, to construct, daily stock prices was collected from NSE for the entire period of under study (2004 – 2008). $P_{it} - P_{it-1} / P_{it-1}$ was used to determine the actual daily positive/negative abnormal returns (R_{it}). Also $I_{it} - I_{it-1} / I_{it-1}$ to calculate daily expected market returns (R_{mt}). $R_{it} - R_{mt}$ calculated the positive or negative abnormal returns. The results from MAAR provide the empirical evidence regarding the relationship among returns and were further tested with 5% of significance level.

Daily NSE 20 share index price chosen to be the yard stick for abnormal return either positive or negative. NSE 20 share index price is the share price of selected listed twenty firms in case a firm is suspended another one selected by following the selection criteria. According to the 56 firms currently listed 45 firms is a good sample out of 56 listed.

In this case the daily prices of 45 firms for five years period which constitute 225 observations were arranged in the form of window of 61 days, 30 days before the announcement day and 30 days after the announcement day showing the announcement date as day zero. By using MS excel now it is easy to arrange and form a table to calculate actual daily returns of selected listed firms, but still it is not clear whether there is positive abnormal return or negative abnormal return unless compared with estimated daily returns from selected NSE 20 Share index firms. The estimation in this index is done by Nairobi Stock Exchange by using geometric mean formula. The second step was to find the difference between average actual daily return from 225 observations and daily NSE 20 index price which automatically shows whether there is positive abnormal

return, if average actual daily return is greater than daily NSE 20 index price and negative abnormal return if the daily NSE 20 share index price is higher. After this stage data was transferred to SPSS to do further analysis by testing with 5% level of significance to show if the abnormal return is significant.

Findings show that average market adjusted abnormal returns (MAARs) on the day of earnings announcement was 3.9 percent, which was statistically significant at 5% significance level (t value=2.45, p -value=0.016). This implies that the announcement of earnings normally carries surprise to the market. It is also worth noting that negative returns are earned most days before the announcement and positive excess returns on the day of announcement of event implying a surprise on the day of announcement. These results strongly suggest that the effect of earnings announcement is strong in Nairobi Stock Exchange.

The results also show that MAARs of day -6 and -2 are about -4.4 percent and -7.7 percent respectively, which are significant at 5 percent level. However, the percentage returns on these days are less than that on day zero. This suggests that market starts to react a few days earlier than the actual announcement of earnings. This could be due to the fact that the information of earnings payment often leaks out to the market a few days before the announcement made by the companies. During the post-announcement periods (day +1 to +30), all MAARs are insignificant except those on day +4, +6, and +12

4.4 Cumulative Abnormal Return

Appendix D presents the Cumulative Abnormal Return from 30 days before and 30 days after announcements for the listed companies. The result in appendix D shows that the cumulative abnormal return is statistically significant for 17 days before the announcement except for day -16, -13, -9 and -4. The results also show that the investors

gain from the earnings announcements on the announcements day. The CAR rose from -19% on day -17 to -11.4% on day zero implying that earnings announcements does carry information about the future of the companies.

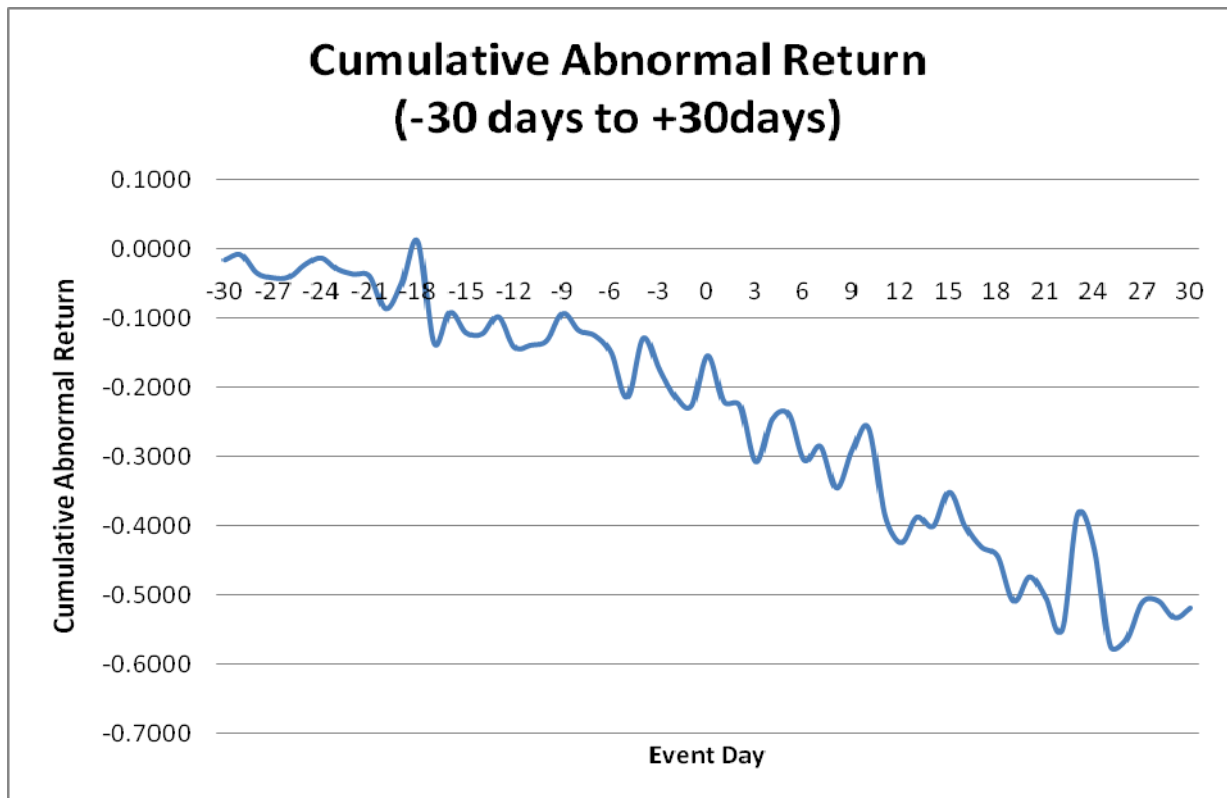
It is also worth noting that the CARs are all significant for all the days after the earnings announcement as shown in Appendix D below. This shows that the Nairobi stock market does react efficiently to earnings announcements in price adjustments up until 30 days after the announcement.

The study examined the effect of the earnings announcements on stock prices of firms listed at Nairobi stock market by looking at the speed of adjustment of share prices to 225 earnings announcements between 2004 and 2008. The study was carried out around the 61-day event windows for the short-run study to capture the reactions over the period. The study reveals negative excess returns before and after the day of announcements date.

The study found out that earnings announcements are normal concurrent events in Nairobi Stock Exchange as some firms announced the two together as against the developed stock market where such announcements are made separately. Price reaction to announcements using daily stock prices around the announcement dates is consistent with findings by Onyangoh (2004).

The results of the study show that the earnings announcements contain relevant information to investors which are fully impounded in stock prices prior to or almost instantaneously at the time of announcement as long as announcement date has positive excess returns. Secondary evidence resulting from this study is the conclusion that NSE shows presence of semi strong model of EMH. This is contrary to early evidence adduced by the study of Ondigo (1995).

Figure 1: Cumulative Abnormal Return around the period of earnings announcements



Source: Drawn by the author from data collected from NSE

Figure 1 above shows the CARs before and after EA, There is a negative Cumulative abnormal return of -0.52 on day +30. It also shows that stock prices are not predictable and random walk exists. On day -18 cumulative abnormal returns has shot up to highest positive after that there is sharp decline to neagtive below zero.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study examined the effect of earnings announcements on stock prices of listed firms at NSE for the period 2004 to 2008. The period under study is the period around the earnings announcements even though all firms do not announce their earnings on one and same but the period is spread between January – April every year. Therefore, the study conclusion is based on the average return of the period surrounding the earnings announcement. It is suggested that earnings announcements have an impact on the shareholders' value (Ball and Brown, 1968) and finds abnormal earning before and after earnings announcements. While the abnormal return before the earnings announcements are relatively easy to theorize away as leakage of information into the market, such is not the case with respect to the abnormal return after the earnings announcements. (Fama 1998) stated “most long term returns anomalies tend to disappear with reasonable technique” or “when alternative approaches are used to measure them”.

An announcement of earnings payments may carry some information for the market and stock prices may be adjusted accordingly. Based on the 45 NSE listed companies declaring earnings during January 2004 and December 2008, the study finds that investors do not benefit from earnings announcement. Over the period starting from 30 days prior to earnings announcement to 30 days after the announcement of earnings payment, investors incurred losses up to 52.14 percent of stock value on average. Although this loss of value is partially compensated by the current earnings yield, investors in Kenya seemed to have no net gain due to earnings payments. The evidence

from NSE tends to support Ball and Brown (1961) hypothesis of earnings. Apart from the academic significance of the findings, the regulatory authorities (NSE and CMA) may wish to review their policy of company evaluation, which emphasizes on earnings payments by the listed companies, in the context of empirical evidence on the earnings effects.

5.2 Recommendations to Policy Makers

Going back to Table 1 of MAAR shows that average daily MAAR is not predictable if today is negative next day is positive or a negative figure which is higher or lower than that figure, it shows the existence of Random Walk Theory prices are not predictable whereby chartists can make abnormal returns. If you look at day zero the average MAAR is positive showing that there are positive abnormal returns but in the next day the prices reacted and adjusted immediately. Therefore this sign shows that the Nairobi Stock Exchange is a semi strong in terms of capturing new information and price pattern predictability.

Like that when the market is semi strong, nobody can benefit events like earnings, dividend, stock split, merger, etc. announcements. In this case if you look at Appendix D it shows that CAR which is negative means market had already reacted and there is no positive abnormal return.

5.3 Limitations of the Study

Carrying research is not always a bed of roses; the researcher is constantly faced challenges which may in one way or another have an impact not only on the process itself but also the outcome of the research. Limitations of this study include first, not all firms remain listed at the Nairobi Stock Exchange over the period under study some were de-listed, this means that only those that remain listed over the research period could be included in the study. Second, some listed firms neither did nor trade for an entire year while other consistently traded over entire research period. Third, preparing the data for analysis was more than handful, this involved finding the daily actual returns, finding daily NSE 20 Share index returns and comparing both returns before estimating the abnormal returns for all firms listed at the Nairobi Stock Exchange.

Considering that it is difficult to have a perfect research situation it is expected that this research will have some limitations. The study was intended for use data for all companies quoted at the Nairobi Stock Exchange for 5 years period this was not achieved due to voluntary de-listing, late admission or non-trading. The accessibility of information for more companies could have lead to attainment of better result; a longer period could have yielded different result.

The Nairobi Stock Exchange is an emerging market. Studies have also shown that the information in this market is not disseminated instantly, yet the study relied on perfect dissemination of information about the study of analysis of earning announcement. The length of the period of study can be increased to find out whether the effect of earning announcements will continue in a longer period.

The study's major limitations was that it only focused on firms that are listed at the NSE and only included data for firms that are remained during the listed entire study period

(2004 – 2008) for which their market data was available. This may not have been adequate to draw inference to the general population as quoted companies may not be an objective representative of all firms in Kenya. Many other things can affect the stock prices of listed companies like weekend effects, January effect, but in this case only earnings announcements was considered. It appears; however, that this limitation may not seriously impair the results emanating from the study because the author studied effect of earnings announcements to stock prices of 61 days event window and obtain results similar and more detailed to the ones obtained using week and monthly stock prices.

5.4 Suggestions for Further Research

Nairobi Stock Exchange has been extensively researched and a lot more needs to be done to provide more information to stock holders, traders, students and general public at large. As seen earlier the stock exchange plays an important role in any country's development a lot of information about this market needs to be known to attract more players and also for existing players to commit more of their funds in the markets to increase turn over. This study undertook to analysis the effect of earnings announcements on stock prices, the result shows that the events of earnings announcements have an impact on stock prices, different stock exchange show different impacts.

For more robust results further work is required in this area, which utilizes better proxy variables and conducted at the intraday level before firm conclusion can be reached. Comparison between the Kenyan economic and other economies and Stock Exchanges to find out the reasons why fluctuations are either positive or negative need to be done. A research on macro economic and other factors to find out the other causes of these fluctuations should also be done to shed some light on why there are these fluctuations. This is important to be able to determine in advance what to expect in the market scene. A research on the effect of regime changes such as experience in Kenya should be looked into and other major events to determine the effect of the event to the stock prices.

In this time of modernized information and communication Technology (ICT) markets all over the world are going greater efficiency. ICT allows for more effective, faster means of information dissemination. Bearing in mind a researcher may feel the need to establish whether the recent adoption of electronic trading by the Nairobi Stock Exchange has developed for prices to adjust more precisely to new entering the market. In future studies other models other than return analysis should be employed and data should also cover a longer period.

For the purpose of improving this study, it is suggested that a similar study could be carried out to cover a longer period of time so as to obtain more reliable findings. The variables identified in this study can be tested on companies not quoted at the Nairobi Stock Exchange. The additional information obtained thereof including the result of this study can be used to draw generalization for firms in Kenya.

Further research and study can be done in the following areas:

Researchers can extend the study to include the type of market weak form or strong form.

Researcher can also research if chartists are making profits by predicting the pattern of market stock prices. Also researcher can study the existence of insider trading. To extend the current study and include none listed companies. To compare effect of earning announcement of listed and none listed companies.

APPENDICES

Appendix A

Names of continually listed Firms Code

Agricultural

1. Kakunzi Ltd	KAKUZI
2. Rea Vipingo Plantations Ltd	REAVIP
3. Sasini Tea & Coffee Ltd.	SASINI
4. Unilever Tea Kenya	UTK

Commercial and Services

5. Car & General (K)	CARGEN
6. CMC Holdings Ltd.	CMC
7. Kenya Airways	KENAIR
8. Marshalls (E.A.)	MARSH
9. Nation Media Group	NMG
10. Tourism Promotion Services Ltd	SERENA

Finance and Investment

11. Barclays Bank Ltd	BBK
12. CFC Bank Ltd.	CFC
13. Centum Investment Co. Ltd	CIC
14. Diamond Trust of Kenya	DTK
15. Equity Bank Ltd Ord.	EBL
16. Housing Finance Co. Ltd	HFCK
17. Kenya Re-Insurance Corporation	KRIC
18. Jubilee Insurance Co. Ltd	JUB
19. Kenya Commercial Bank	KCB
20. National Bank of Kenya Ltd	NBK
21. NIC Bank Ltd.	NIC
22. Pan Africa Insurance Co. Ltd.	PANAFR

23. Standard Chartered Bank SCBK

Industrial and Allied

24. Athi River Mining ARM
25. BOC Kenya Ltd. BOC
26. Banburi Cement Ltd BAMB
27. British American Tobacco Kenya BAT
28. Carbacid Investment Ltd. CARB
29. Crown Berger CBERG
30. E.A. Cables EACABL
31. E.A. Portland cement EAPORT
32. East African Breweries Ltd. EABL
33. Eveready East African Ltd EEAL
34. Sameer Africa Ltd SAL
35. KenGen Ltd KENGEN
35. Kenya Oil Co. Ltd KENOL
36. Mumias Sugar Co. Ltd MSC
37. Kenya Power & Lighting Co. Ltd. KPL
38. Total Kenya Ltd TOTAL
39. Unga Group Ltd. UNGA

Alternative Market Segments

40. A Baumann & Co. ABAUM
41. City Trust Ltd. CTRUST
42. Eaagads EAGADS
43. Express Kenya EXPRESS
44. Williamson Tea Kenya Ltd WTK
45. Kapchorua Tea Kenya Ltd KAPCHO
46. Kenya Orchards Ltd. KORCH
47. Limuru Tea LTEA

Appendix B

Company Name : _____				
	Daily Stock price		NSE 20 share Index	
Day	Opening Price	Closing Price	Opening Price	Closing Price
-30				
-29				
-28				
-27				
-26				
-25				
-24				
-23				
-22				
-21				
-20				
-19				
-18				
-17				
-16				
-15				
-14				
-13				
-12				
-11				
-10				
-9				
-8				
-7				
-6				
-5				
-4				
-3				
-2				
-1				
0				
1				
2				

3				
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Appendix C

Market Adjusted Abnormal Return (MAAR) of 45 listed companies at NSE over a window period starting from day -30 to day +30 relative to earnings announcements day (0-day).

Day relative to earnings announcements	Average MAAR	t-Value	Pr > t
-30	-0.0082	-0.45	0.6569
-29	0.0011	0.09	0.9310
-28	-0.0106	-0.80	0.4250
-27	0.0178	2.21	0.0301*
-26	-0.0291	-1.67	0.1002
-25	-0.0200	-1.42	0.1616
-24	0.0194	1.41	0.1614
-23	-0.0139	-0.55	0.5861
-22	0.0013	0.08	0.9336
-21	-0.0127	-1.00	0.3215
-20	-0.0249	-1.39	0.1674
-19	-0.0396	-1.31	0.1971
-18	0.0343	1.63	0.1083
-17	-0.0758	-2.82	0.0062*
-16	0.0219	2.06	0.0432*
-15	-0.0376	-2.00	0.0483*
-14	0.0129	0.94	0.3499
-13	0.0054	0.57	0.5683
-12	-0.0248	-1.72	0.0909
-11	-0.0158	-0.83	0.4114
-10	0.0016	0.16	0.8700
-9	-0.0056	-0.20	0.8456
-8	-0.0252	-1.21	0.2306

Day relative to earnings announcements	Average MAAR	t-Value	Pr > t
-7	-0.0037	-0.21	0.8334
-6	-0.0435	-2.43	0.0170*
-5	-0.0245	-1.34	0.1841
-4	0.0272	0.71	0.4790
-3	-0.0094	-0.40	0.6915
-2	-0.0773	-2.18	0.0327*
-1	-0.0155	-0.86	0.3900
0	0.0387	2.45	0.0160*
1	-0.0253	-0.81	0.4200
2	-0.0078	-0.22	0.8277
3	-0.0313	-1.41	0.1633
4	-0.0421	-2.10	0.0393*
5	-0.0201	-1.01	0.3140
6	-0.0641	-2.18	0.0315*
7	-0.0026	-0.14	0.8855
8	-0.0216	-1.52	0.1315
9	-0.0544	-1.78	0.0801
10	0.0448	1.59	0.1175
11	-0.0332	-0.65	0.5157
12	-0.0625	-2.21	0.0300*
13	-0.0189	-1.04	0.2994
14	-0.0302	-1.44	0.1513
15	0.0135	0.73	0.4654
16	-0.0013	-0.10	0.9233
17	-0.0025	-0.18	0.8590
18	0.0163	1.25	0.2154
19	-0.0222	-1.01	0.3160

Day relative to earnings announcements	Average MAAR	t-Value	Pr > t
20	-0.0411	-1.69	0.0951
21	-0.0300	-1.86	0.0659
22	-0.0158	-0.99	0.3231
23	-0.0226	-1.25	0.2173
24	0.0013	0.05	0.9610
25	-0.0142	-0.50	0.6163
26	-0.0603	-1.94	0.0560
27	-0.0310	-1.63	0.1064
28	-0.0105	-0.53	0.5969
29	-0.0062	-0.24	0.8090
30	-0.0199	-0.97	0.3379

Note: Asterisk in the last column denotes that the corresponding MAAR is statistically significant. The asterisk indicates 5% level of significance (based on the t values).

Appendix D

Cumulative Abnormal Return (CAR) of 45 listed companies at NSE over a window period starting day -30 to day +30 relative to earnings announcements day (0-day).

Day relative to earnings announcements	Average CAR	t-Value	Pr > t
-30	-0.0082	-0.45	0.6569
-29	0.0031	0.10	0.9195
-28	-0.0210	-0.75	0.4531
-27	0.0047	0.24	0.8075
-26	-0.0534	-1.31	0.1963
-25	-0.0254	-1.08	0.2820
-24	0.0282	1.13	0.2623
-23	-0.0329	-0.56	0.5777
-22	-0.0263	-0.64	0.5233
-21	-0.0407	-1.53	0.1278
-20	-0.0901	-1.97	0.0523
-19	-0.0734	-1.20	0.2341
-18	0.0534	1.42	0.1593
-17	-0.1904	-3.40	0.0011*
-16	-0.0616	-1.77	0.0803
-15	-0.1442	-2.70	0.0083*
-14	-0.0922	-2.31	0.0229*
-13	-0.0765	-1.95	0.0550
-12	-0.1508	-2.79	0.0071*
-11	-0.1359	-2.27	0.0266*
-10	-0.1028	-2.13	0.0368*
-9	-0.1130	-1.96	0.0542
-8	-0.1442	-2.30	0.0239*

Day relative to earnings announcements	Average CAR	t-Value	Pr > t
-7	-0.1278	-2.48	0.0144*
-6	-0.1885	-3.31	0.0013*
-5	-0.2195	-3.09	0.0031*
-4	-0.0993	-1.41	0.1628
-3	-0.1870	-2.72	0.0080*
-2	-0.3035	-3.16	0.0023*
-1	-0.2467	-3.32	0.0013*
0	-0.1135	-2.00	0.0475*
1	-0.2365	-2.77	0.0069*
2	-0.2153	-2.00	0.0498*
3	-0.3235	-3.22	0.0021*
4	-0.2877	-3.16	0.0023*
5	-0.2557	-3.03	0.0033*
6	-0.3665	-3.42	0.0009*
7	-0.2859	-3.58	0.0005*
8	-0.3583	-3.67	0.0004*
9	-0.3290	-2.56	0.0133*
10	-0.2164	-2.02	0.0482*
11	-0.4172	-3.16	0.0022*
12	-0.4844	-3.64	0.0005*
13	-0.4119	-3.90	0.0002*
14	-0.4268	-4.14	<.0001*
15	-0.3265	-3.11	0.0024*
16	-0.3856	-2.82	0.0064*
17	-0.4205	-2.99	0.0041*
18	-0.4233	-4.00	0.0001
19	-0.5250	-3.92	0.0002*

Day relative to earnings announcements	Average CAR	t-Value	Pr > t
20	-0.5136	-3.74	0.0003*
21	-0.5230	-4.37	<.0001*
22	-0.5550	-4.10	<.0001*
23	-0.3857	-2.50	0.0155**
24	-0.4201	-2.46	0.0167*
25	-0.5854	-4.18	<.0001*
26	-0.6210	-3.73	0.0004*
27	-0.5397	-3.70	0.0004*
28	-0.5111	-4.08	<.0001*
29	-0.5239	-3.53	0.0007*
30	-0.5214	-2.70	0.0092*

Note: Asterisks in the last column denotes that the corresponding CAR is statistically significant. The asterisk () indicates 5% level of significance (based on the t values).*

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