EFFECT OF PROFIT WARNING ANNOUNCEMENTS ON SHARE RETURNS AT NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I declare that this research project is my original work and has not been submitted to any other college, institution or university

Signature…………………………………...   Date……………………………

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D63/85633/2016

This research project has been submitted for examination with my approval as the university supervisor

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DEDICATION

I dedicate this research project first to my late dad, Mr. James Karari, for his love, unwavering support and sacrifice. The values you taught me will remain with me for as long as I live. You remain a great source of inspiration to me.

I also dedicate this research project to my dear mum, Mrs. Mary Njeri Karari, for her steadfast love and unmatched support. Finally to my sister, two brothers, my sister-in-law and brother-in-law, thank you for always being there.

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ABSTRACT

Investors require different pieces of information when making investment decisions. Profit warning is an example of such information. In Kenya, disclosure of profit warnings to the public by companies listed at the NSE is mandatory and is enforced by CMA. The objective of this study was to examine the effect of profit warning announcements on the share returns of companies listed at the NSE. Share price data of 40 listed companies which had issued profit warnings between January 2015 and June 2018 was used. This study adopted the event study methodology where an event window was taken to be 21 days, -10 days prior the event date, +10 days post the event date and the actual date the announcement was made taken as day 0. An estimation period of 20 days was chosen. The market model was used to determine the abnormal return for each company. The expected return was calculated using OLS, NASI taken as the market proxy and data analysed using excel and SPSS application and presented in form of tables and graphs. To determine the effect on the NSE, an average abnormal return (AAR) was calculated by getting an average of the abnormal returns for all companies on every particular day over the event period and cumulative average abnormal returns (CAAR) were then calculated by summing up the average abnormal returns over the event window. Paired sample analysis was done to compare the AAR before the announcement to AAR after the announcement. The same was done for CAAR. Findings revealed positive average abnormal returns which peaked at 1.65% prior to the announcement on day -3, showing evidence of insider trading. Negative average abnormal returns of -2.19% were recorded on day +1 affirming the assertion that profit warnings are interpreted as negative information by many investors. These were statistically significant at 5% significance level with a t statistic value of +2.2334 on day -3 and value of -2.6301 on day +1. The same trend was registered for CAAR with positive returns registered prior the announcement and a reversal to negative returns after the announcement. The findings from the paired sample analysis were consistent with those of AAR. The results revealed a mean positive AAR prior the announcement of + 0.1043% and a mean negative AAR after the announcement of -0.2551%.The paired sample t- test for AAR had a t statistic value of -1.218 which is in absolute value greater than zero hence revealing that AAR before and AAR after profit warning announcement are statistically different at 95% confidence level. The mean value of the CAAR after the announcement was negative at -2.7807% while that from before the announcement was positive at +0.8427% and had t statistic value of -16.387. The conclusion drawn therefore was that the NSE is a semi strong efficient market where profit warning announcements are absorbed quickly by the market as negative news with cases of positive average abnormal returns noted prior to the announcement revealing existence of insider trading. The latter would be seen to mirror the strong form EMH but the fact that the information is only to a few of the investors and not the whole market makes it is not so. These findings better inform its users on the negative effect that profit warnings announcement have on share returns in Kenya. Companies will therefore be in a position to package these announcements in a way that the information relayed is more comprehensive on the issues leading to such announcements as well as the future prospects of the company. The regulatory authority can also enforce policies in terms of investor protection where penalties are charged where cases of insider trading are noted. Other scholars can explore the same topic using a multifactor model to incorporate other factors affecting the market at the same time as when the announcements are made.

LIST OF ABBREVIATIONS

AAR   -Average Abnormal Return

AR   -Abnormal Returns

CAAR   -Cumulative Average Abnormal Return

CDSC   -Central Depository and Settlement Corporation

CMA   -Capital Markets Authority

EMH   -Efficient Capital Markets

EPS   -Earnings Per Share

LSE   -London Stock Exchange

NSE   -Nairobi Securities Exchange

OLS   -Ordinary Least Square

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In most cases, the share price is an important indicator of the firm value. Fluctuations in share prices of a company are usually a reflection of the investors' perception of the health of the firm all other factors held constant. The sell, hold or buy decision of a company's shares by investors is informed by the information that has been made available to them. According to Damodaran (2002), in efficient markets, the market price represents the best estimation of a firm's true value. Bender and Ward (2009) argue that the share price of a company reflects a view of its future prospects and an asymmetry of information might lead the market to have different views to those of the executive and board. Timely disclosure of information by the board and management of a company is therefore very important both in light of revealing the value of the firm from its past dealings and also in informing investors of the future prospects of the company. One such type of information is the profit warning announcement.

There are various theories that seek to address the issues around relaying of information by management to shareholders. EMH, developed by Eugene Fama in 1970, states that security prices respond immediately to new information in the market, incorporating it into their current prices. Agency Theory, developed by Ross in 1973, addresses the agency relationship that arises between shareholders, who are the principals, and management, who are the agents. Random Walk Theory that was developed by Fama in 1995 infers that there is no relationship in a series of share prices. This therefore goes to say that historical price patterns cannot be used to determine future share prices.

In Kenya, disclosure of profit warnings to the public by listed companies is mandatory. This is because companies listed at the NSE deal with funds from the public. Investors at the NSE require this kind of information in order to make informed investment decisions. Sharing of this information is enforced by the Capital Markets Authority. CMA Regulations, 2002 Paragraph G.05 (1) (f) states that the listed company is to inform the public by way of a profit warning when it determines that the projected earnings of the current year are at least 25% lower than preceding year's, failure of which attracts a penalty by the Authority (CMA regulations, 2002 Amended 2016).

1.1.1 Profit Warnings Announcement

The Collins English Dictionary defines profit warning as "a public announcement made by a company to shareholders and others warning that profits for a stated period will be much lower than had been expected." In Kenya, this has been made more specific by the CMA regulations, 2002 to state that earnings of current year are to be less by at least a quarter the preceding year earnings.

According to Subramanyam and Wild (2009), the announcement provides a summary of the company's performance and the price reaction is seen on the day it is made as opposed to when the full financial statements are released yet it is the latter that provide detailed information that is useful for analysis. Subramanyam and Wild (2009) also say that more companies are now issuing warnings so as to avoid negative reaction that is associated with reporting of bad earnings.

In Kenya, the issuer of the profit warning is expected to make public announcements within twenty four hours of determining that the projected earnings will materially differ from what is expected. Some companies have before breached this requirement

such as the National Bank of Kenya where in 2016, CMA penalised the bank for failure to issue a profit warning in March 2016 for the 1.15 billion shillings loss in 2015 (Mwaniki, 2017).

1.1.2 Share Returns

According to Reilly and Brown (2012), when investors make investments, they postpone current consumption so as to increase their wealth and consume more in future. Reilly and Brown (2012) also argue that an investment should compensate the investor for investment risk, time value of money over investment period and loss of value from inflation. From this argument therefore, a positive total shareholder return arises from both an increase in the share price which results in a capital gain and any dividend amount paid over the holding period. The inverse is true where a shareholder experiences a negative return or capital loss from their investment arising from decrease in the share price over the holding period.

As stated by Fama (1970), the share price is a reflection of all the information available on the company. Fluctuations, therefore, in the share prices come from absorption of information by investors who in turn respond by selling, holding or buying the shares.

Herrerias and Bulkley (2005) used behavioural finance models in their study which resulted in findings that implied short term momentum from under reaction to public information and reversals of the share returns in the long term. This is in contrast to the other models which include the EMH and Signalling theories which argue that share prices overreact to news.

1.1.3 Profit Warning Announcement and Share Returns

Reilly and Brown (2012) state that those who advocate for EMH would expect returns to adjust quickly to announcements of new information and thereby preventing abnormal returns from being experienced by investors who act after the announcement.

Subramanyam and Wild (2009) in their research analysis state that bad earnings announcements tend to be linked with negative returns. They go on to add that a large portion of share returns is seen prior to the announcement.

According to Akinyi and Melissa (2017) the share prices respond to earnings announcements in the month of announcement and also during the first and second months after announcement has been made.

Aboagye and Opoku (2013) concluded from their study on companies listed at the Ghana Stock Exchange that earnings announcement had no major effect on share prices at the time of announcement and immediately after.

Another study conducted on companies listed at the NSE by Kiminda, Githinji and Riro (2014) had results which indicated that profit warnings have negative and significant impact on share return over the event period.

Heesters (2011) in his study on companies stock returns after profit warning in the Netherlands resulted in these warnings being followed by large negative abnormal returns over the short term and there after a downward drift over the twelve month post-event period.

Wang and Phet (2012) study findings showed that share price behaviour responds gradually to earnings announcement. The results had most average abnormal returns being statistically insignificant during the event window.

1.1.4 Nairobi Securities Exchange

All companies listed at the NSE are required to make a disclosure to the public where the projected earnings of the current year are less by at least a quarter the preceding year's (CMA regulations, 2002 Amended 2016).

NSE was founded in 1954 as Nairobi Stock Exchange. It was founded to provide a platform to allow local and international investors tap into Africa's economic growth. In July 2011, it became Nairobi Securities Exchange in a plan to widen the scope of its services. It later on, in 2014, became self-listed (History of NSE, 2018)

NSE operates under the regulation of Capital Markets Authority with its members who include stock brokers and investment banks being overseen by the CDSC which also provides clearing, delivery and settlement services for the securities traded. The NSE is an affiliate of the World Federation of Exchange, founder member of African Securities Exchanges Association and the East African Securities Exchanges Association (Regulatory Framework, 2018). The regulation on profit warning announcements by CMA is that a public announcement must be made by the issuer where there is a major difference between projected earnings of the current year and prior year's earnings (CMA regulations, 2002 Amended 2016).

NSE currently has over seven indices ranging from share indices to bond indices. All these provide investors with measures of performance of the securities market (About NSE, 2018)

NSE has gone a long way into making its services more efficient. Stock brokers and indeed individual investors do not have to have physical presence at the bourse to trade securities. The process has been automated and with internet and from anywhere, these transactions can take place. This has even extended to online trading of Corporate and Government Treasury Bonds, both in local and foreign currencies (History of NSE, 2018).

NSE has equity securities listed under various sectors ranging from Agriculture, manufacturing, technology, construction, banking, investment, just to mention but a few. At the time of conducting this research, a total of sixty seven counters had been listed under the NSE Equity Securities (Listed Companies, 2018)

1.2 Research Problem

Profit warning announcement is one piece of the information that is consumed by investors when making investment decisions. Many studies have been done on the effect that profit warning announcements have on share returns, with conflicting results emerging. The effect of profit warning announcement on share return is in line with the actions taken by investors in reaction to such warnings. There are many reasons that would cause the profits of a company to fall by at least 25% of previous year's profits hence necessitating the profit warning announcements. These reasons range from external factors such as changes in economic environments, inflation, interest rate and exchange rate changes, political uncertainty to internal factors such as accounting changes, one off activities such as lawsuit payments, among others. Communication of such factors would lead to more informed decisions by investors.

In Kenya, CMA requires all listed companies to inform the public in form of a profit warning when the projected earnings of the current year are determined to be at least

25% lower than earnings of the preceding year (CMA regulations, 2002 Amended 2016). The number of profit warnings issued by companies listed at the NSE was nine in year 2017, with the highest in the last five year period being sixteen profit warnings which were issued in year 2015. In 2017, some of the reasons cited by companies that issued profit warnings included; weaker performance of business in Kenya as a result of poor private sector credit growth, election period, drought conditions and low export volumes by Bamburi Cement Ltd, prevailing adverse market conditions due to the prolonged and disruptive election period by the Standard Group. The reasons ranged from firm related factors, industry related factors to macro-economic factors.

Studies on this area have been conducted with results being inconsistent and hence leading to lack of agreement on the effect that profit warning announcements have on share returns. From a global perspective, a study by Aboagye and Opoku (2013) on the effect of earnings announcements by companies listed on the Ghana Stock exchange revealed that abnormal returns around the announcement dates were insignificant and hence inconsistent with EMH. Studies have also been done with a focus on determining which, between qualitative and quantitative warnings, has more effect on share returns. Bulkley and Herrerias (2005) did a study on US companies that issue profit warnings on CNN between years 1998 and 2000 with a keen interest on investors' reaction to qualitative warnings and to quantitative warnings. The study revealed negative abnormal returns after issuance of qualitative and quantitative warnings with the latter being of smaller absolute size. Heesters (2011) who studied stock returns following profits warnings of companies in the Netherlands market had findings that resulted in abnormal returns drifting downwards over the event period.

On the local front, Kamau (2016) study on the effect of profit warnings on share returns of sixteen NSE companies, before the election year 2017, resulted in findings

that they had a negative impact on the share returns. Akinyi and Melissa (2017), in their study on the effect of earnings announcements on share prices of listed companies at the NSE, had results which revealed a positive relationship between earnings announcements and abnormal returns. A study by Patrick (2014) on NSE companies which issued profit warning announcements between 2012 and 2013 showed evidence of abnormal returns raising suspicion of insider trading.

This research sought to answer the research question, what is the effect of the profit warnings announcements on the share returns of the companies listed at the NSE.

1.3 Objective of the Study

The objective of this study was to examine the effect of profit warning announcements on the share returns of companies listed at the Nairobi Securities Exchange.

1.4 Value of the Study

Investors from this study are able to see the impact that previous profit warning announcements have had on share returns. From this, they are in a position to make more informed decisions such as buy, hold or sell by predicting their returns based on the findings from this analysis which has been done on share returns from companies that have issued profit warnings. Investment firms and brokers also stand to benefit from this study as they use its findings in collaboration with other information to analyse and better advice their clients on which investment decision to make.

Management and decision makers in companies listed at the stock exchange are able to see the impact that previous profit warning announcements have had on share returns. This informs them on the expectations surrounding such announcements and

they are able to determine suitable timings so long as they fall within the regulations set. They also are able to communicate more effectively during the information release on the cause of the decrease in earnings so that their shareholders are more informed about the future prospects of the company.

The regulators benefit from this study through its analysis and findings. It informs them of other regulatory requirements that could be demanded for better disclosure by companies and also measures that could be taken to promote investor protection which in turn could lead to an environment that is a strong efficient market.

Other researchers and scholars benefit from this study as they conduct their own research studies. It helps them find ways of adding to the body of knowledge by focusing on other dynamics not covered in this study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section discusses the theoretical and empirical literature through drawing of information from many studies that have been done over the years in relation to how share prices and by extension share returns react to new information in the market.

2.2 Theoretical Review

The section reviews some of the theories that assisted in understanding the effect that profit warning announcements have on share returns. The theories include the Efficient Market Hypothesis, Random Walk Theory and Agency Theory.

2.2.1 Efficient Market Hypothesis

Efficient market hypothesis is a theory in finance developed by Fama in 1970. The theory states that security prices respond immediately to new information in the market with the current prices incorporating it. The market in which this happens is known as the efficient capital market (Reilly & Brown, 2012).

Malkiel (2003) therefore explains this to mean that neither technical analysis, which involves a study of historical stock prices to determine future prices, nor fundamental analysis, that is an analysis of financial statements to determine the value of shares, would enable an investor gain the advantage of greater returns than those investors holding shares which were selected randomly.

Reilly and Brown (2012) had three assumptions associated with the EMH theory. First, the market has a large number of investors analysing and valuing various securities independently. Second, new information comes into the market in a random

manner and third, buy and sell decisions by investors lead to security prices rapidly changing in response to the new information.

The efficient market hypothesis has three sub hypotheses under it. These include the weak form, semi-strong form and strong form efficient market hypotheses, all in relation to the kind of information available to investors (Reilly & Brown, 2012).

The weak form EMH assumes that current security prices already reflect all past information in the market in terms of prices of securities and volumes traded. With this therefore, future security prices have no relationship to the past price patterns and investors would not be able to make a return that is higher than the supposed risk of the security through the use of this past information (Reilly & Brown, 2012).

Semi- strong form EMH states that current security prices incorporate all information that is in the public domain. Therefore, the prices here reflect all the information in the weak form EMH and all the other nonmarket information. It concludes that investors who make their buy, hold or sell decisions on the information that is public would not make higher return than that which reflects the perceived risk of the security by using information that is available to the public. This is because prices immediately incorporate all the new public information (Reilly & Brown, 2012).

The strong form EMH states that current security prices reflect all public and private information. It incorporates all the information in the weak and semi strong forms of EMH and also any information that is in the private domain. Therefore, no investor would make above risk adjusted returns as all information is available to all investors (Reilly & Brown, 2012).

2.2.2 Random Walk Theory

According to Fama (1995) the theory of random walks infers that there is no relationship in a series of share prices and therefore historical price patterns cannot be used to determine future share prices.

Just like in EMH, the random walk theory concludes that the return from a security selected by an analyst will give no better return than one selected randomly by a normal investor because the current price incorporates all the information in the market (Fama, 1995). Those in favour of this theory argue that fundamental analysis can only be of value if the analyst is in possession of information which has not been fully incorporated into the current prices.

2.2.3 Agency Theory

Agency theory was developed by Stephen Ross in 1973. It was developed on the premise that structures needed to be put in place to manage the agency problem that exists between the principal and the agent.

Ross (1973) explains "that an agency relationship has arisen between two (or more) parties when one, designated as the agent, acts for, on behalf of, or as a representative for the other, designated as the principal, in a particular domain of decision problems" (p.134).

In a firm setting, the agency relationship arises between the shareholders, who are the principals and the management, who are the agents. Many problems arise in this relationship but all can be generalised by the idea that agents always tend to act in their own interests as opposed to those of the principals who appoint them (Jensen & Meckling, 1976). The responsibility of management is to maximise shareholder wealth. The decisions made by them should be those that promote this goal (Brealey

& Myers, 2003). Shareholder wealth is realised through share returns and dividend paid as a result of firm performance. Any actions therefore that affect the two should be handled with care by management.

Jensen and Meckling (1976) argue that the agency problem can be solved by the principal offering incentives to the agent to deter him from pursuing his own interests and also by incurring costs associated with monitoring activities of the agent.

In regards to profit warnings, management should follow the regulations set by the Capital Markets Authority on the public announcement. Further to this, management should disclose information to the shareholders and the public in a timely manner. In support of this, Hermalin and Weisbach (2012) argue that to some extent, disclosure can increase the value of a firm as it reduces information asymmetry between management and shareholders and improves the ability of the latter to monitor the former. Accuracy and timely dissemination of information enables investors make more informed investment decisions.

2.3 Determinants of Share Returns

There are many factors, both companies specific and macroeconomic which affect movement of share prices and by extension share returns. Both management of the firms and investors need to be well aware of these factors as they stand to influence their decisions. Management require knowledge of the factors so as to enhance the firm value which in turn improves the shareholders returns. Investors on the other hand will require the same so as to determine which shares to buy, hold or sell.

This research study narrowed down to only four factors due to a number of reasons. Two of the factors were firm specific while the other two were economic factors.

Profit warning announcement and firm performance are among the most important information consumed by investors in decision making. Inflation on the other hand directly affects the investors disposable income and the political events was chosen as a factor since the year 2017 was an election year in Kenya and nine companies issued profit warnings in the same year.

2.3.1 Profit Warning Announcements

Investors primarily rely on information to make investment decisions. Management of a company who act as agents of their principals, the shareholders, have a responsibility to share information about the company in a timely manner. One such piece of information is an announcement of a profit warning. Profit warning is a disclosure of information to shareholders and investors that the profit in the current year will materially fall short that of the previous financial year (CMA regulations, 2002 Amended 2016).

In Kenya, disclosure of profit warnings by listed companies is mandatory. This is because it has been seen to have an effect on the share returns over the days surrounding the event. Many studies have been done on how the profit warning announcement affects share returns of a company. Kamau (2016) study on the effect of profit warnings on share returns of NSE companies resulted in findings that it had a negative impact on the share returns. A study by Patrick (2014) on NSE companies which issued profit warning announcements between 2012 and 2013 showed evidence of abnormal returns raising suspicion of insider trading.

2.3.2 Firm Performance

Performance of a company can be assessed through analysis of its financial information. Subramanyam and Wild (2009) define financial analysis as the "use of

financial statements to analyse a company's financial position and performance, and to assess future financial performance." Companies maintain this information in three major reports; statement of financial position, income statement and cash flow statement. Under each of these reports are various variables that can be individually assessed by an investor to determine if the company shares are a worthy investment. There is a variety of tools that are available to help analyse financial statements and which are designed to fit specific needs of users (Subramanyam & Wild, 2009).

Many studies have been done to determine the impact that the company performance has on its share returns. Different variables though have been chosen by different researchers. In addition to assessment of the variables, the size of the company is taken into consideration to limit on the biasness that comes with size and the unique opportunities associated with the same. Kioko (2013) argues that larger organizations seem able to generate stronger competitive capability when compared to their smaller rivals.

Anwaar (2016) conducted a study on the impact of performance on share returns. The study was on firms listed on FTSE-100 index of the LSE. The results revealed that two variables, return on assets and net profit margin, had a significant impact and the EPS had a significant negative impact since investors rushed to sell their shares in order to realize the gain leading to excess supply of stocks.

Zhao (2013) research revealed no relationship between share returns and return on equity from his study on a sample of listed companies in China.

2.3.3 Inflation

Inflation is the general increase in the price of goods and services. It reduces the purchasing power of the funds already in possession of the buyer.

The two main causes of inflation are demand pull inflation which arises from increase in the prices of goods following an increase in the ability and willingness to buy more goods and cost push inflation which arises from increase in the prices of goods following an increase in the cost of production (McEachern, 2006).

The effects of inflation are different for different people. Fixed income earners whose income might not change at the same rate of inflation find themselves with less disposable income to be apportioned between consumption and investment (McEachern, 2006). Increase in inflation discourages investments as it is seen to erode the value of that particular investment. Therefore, people choose not to hold money.

Studies have been done to determine the effect that inflation has on the share returns with varying conclusions being drawn by each. Some studies have shown a positive relationship between the two variables, others have shown a negative relationship while still others showing no relationship. Uwubanmwen and Eghosa (2015) on study of inflation rate and stock returns on the Nigerian Stock Market determined that inflation has a negative but weak impact on stock returns and therefore not a strong indicator of stock returns in Nigeria. Moraa (2015) on the other hand concluded from her study on the NSE All Share index that inflation positively affected the index. Wambui (2013) from her study on the effect of inflation on the NSE 20 Share Index concluded that there was no relationship between the two variables.

2.3.4 Political Events

Politics affect the environment in which businesses operate. An unstable political setting naturally leads to investors being extra cautious on their investment activities. The NSE has attracted both local and foreign investors on the transactions of shares belonging to the various companies listed on it. An example of how political events

affect businesses can be drawn from Kenya 2017 elections, where on 1st September 2017, the Supreme Court announced there would be fresh elections. This decision saw a sharp fall in share prices minutes after the announcement which led to a halt at the NSE having been triggered by a five per cent drop in the main NSE 20 share index (Mwaniki, 2017).

Nguthi (2013) did a study on the effect of the March 2013 Kenya general elections on stock returns which resulted in average abnormal returns remaining positive both before and after the elections. Mahmood et al (2014) on their study on the KSE-100 index returns of companies listed at the Karachi Stock Exchange, resulted in negative abnormal returns being observed on some days before and some days after the political event.

2.4 Empirical Review

Many studies have been conducted around announcements of profit warnings and their effects on the share prices and returns.

Gathoga (2016) did a study on effects of profit warning announcements on share returns of companies listed in East Africa with a thirty day event window, fifteen days representing pre announcement date and fifteen days post announcement date. The study resulted in 73.5% of the companies recording a decrease of returns, 23.5% recording an increase of the share returns and the remaining 3% showing no change in returns. Those posting an increase in returns led to the conclusion that these announcements are not available to all investors since the efficient market conditions would have share returns affected negatively by profit warning announcements.

Maina (2014) researched on the effect that profit warnings had on share returns of companies listed on the NSE between 2003 and 2013. The findings revealed 6.7% and 13.3 % of companies' abnormal and cumulative abnormal returns respectively deviating following the announcement, suggesting weak form EMH. This suggested existence of prior market expectations of the profit warning announcements. She therefore concluded that the significance of the returns reactions to the warning was dependent on the company issuing the announcement.

Naliaka (2014) explored the effect on share prices following announcement of profit warning by companies listed on the NSE over the period between 2009 and 2013 which revealed that profit warnings have a negative effect on the stock prices with exceptions of those that were made earlier in the financial year and accompanied by optimistic expectations towards the end of the year.

Patrick (2014) did his study on stock price response to earnings announcement at the NSE over a two year period, 2012 to 2013. The volatility of stock prices at the NSE pointed to possibility of inefficiency. His study resulted in evidence of abnormal returns dominating 25 days before the announcement date and hence drawing suspicions of insider trading. There was also a drift in cumulative abnormal returns 25 days after the earnings announcement over that period contradicting the efficient market hypothesis.

Kanyiri (2016) on his study of effect of profit alerts on companies stock returns at the NSE from the period between 2014 and 2015, revealed that stock returns are negatively affected by the announcements as evidenced by a decline in abnormal returns over the event period.

Kamau (2016) did a study exploring the effect of profit warning announcements on share returns of sixteen companies listed at the NSE over the period between 2015 and 2016. The findings of this research resulted in a conclusion that the profit warnings had negative impact on share returns at the NSE as evidenced by the abnormal negative returns realized after the announcement and evidence of insider trading from the abnormal positive returns pre announcement.

Bulkley and Herrerias (2005) did a study on US companies that issue profit warnings on CNN between years 1998 and 2000 with a keen interest on investors' reaction to qualitative warnings, which issue no new numerical revised forecast, in comparison to quantitative warnings, which are more precise as they contain new numerical revised forecasts. Their research revealed negative abnormal returns for both the qualitative warnings and quantitative warnings over the three month period with the results being lessor in absolute size for the latter. This, they said, could be explained by overconfident investor biasness.

Heesters (2011) studied stock returns following profits warnings of companies in the Netherlands market as he also sought to determine the difference in reactions to qualitative and quantitative profit warning announcements. The findings were similar to Bulkley and Herrerias's (2005) which revealed negative abnormal returns in the short term and the downward drift persisted in the medium term. The results however did not show a big difference between the returns exhibited the quantitative and qualitative warnings.

Akinyi and Melissa (2017) in their study on the effect of earnings announcements on share prices of companies at the NSE had findings that revealed a positive relationship between earnings announcements and abnormal returns.

Aboagye and Opoku (2013) analysed share prices following profit warnings in Ghana, case study of Ghana Stock Exchange over the years 2010 to 2013, which resulted in evidence of abnormal returns around the announcement period not being significant and hence had no major effect on share prices.

2.5 Conceptual Framework

A conceptual framework illustrates diagrammatically the hypothesized relationship between the research variables. The dependent variable was the share price from which the share returns were calculated. The independent variable was the profit warning announcement by the management of the company. This study conceptual framework is shown in the figure below.

Figure 2.1: Conceptual Framework

Event		Stock Prices
• Profit warning announcement	→	• High stock prices • Low stock prices
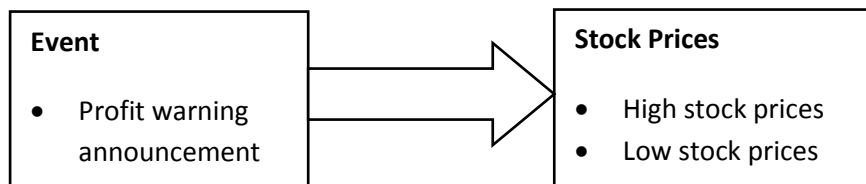
2.6 Summary of Literature Review

Investors consume information from many different sources when making investment decisions. Part of that information is that communicated by the company. More specifically in this research study looked at profit warning statements given by company management and their impact on share returns around the announcement date.

Many theories have been developed around information dissemination in the market and how this translates to reactions by investors which further translate to movements

in share returns. The EMH developed by Eugene Fama in 1970 states that security prices respond immediately to new information in the market, incorporating it into their current prices and hence investors cannot make abnormal returns from any new information released into the market. The random walk theory in turn supports EMH by concluding that the return from a security chosen by an analyst will give no better return than one selected randomly by a normal investor because the current price incorporates all the information in the market. The agency theory was developed on the premise of the agent principal relationship with management being the agents of the shareholders who are the principals. The management are expected to act in the best interest of shareholders and one of the ways is to make available all the information that has potential to affect the shareholders' investment. Issuing profit warnings is one such piece of information. This is reinforced in Kenya by the requirement by CMA on all listed companies to disclose by means of a public announcement of a profit warning where the projected earnings of the current year are at least 25% lower than the level of earnings in the previous financial year, failure of which attracts a penalty by the Authority.

Many researchers have explored this area via different dynamics. Some have even gone further to compare the significance of the effect on share returns from qualitative profit warnings to the effect from quantitative profit warnings. Unfortunately the research findings have not been very conclusive especially in terms of being consistent with the assertions made by the above theories. The lack of consistency in findings begs for more research in the area.

A summary of the empirical review is as tabulated below.

Table 2.1: Empirical Studies

Author of Study	Focus of Study	Methodology	Findings	Knowledge gap	Focus of Current study
Akinyi and Melissa (2017)	Effect of earnings announcements on share prices of companies listed at Nairobi Securities Exchange	Event Study Methodology	The study revealed a positive relationship between earnings announcements and abnormal returns	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Gathoga (2016)	Effects of profit warning announcements on share returns of companies listed in East Africa	Event Study Methodology	73.5% of the companies recording a decrease of returns, 23.5% recording an increase of the share returns and the remaining 3% showing no change in returns	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Kamau(2016)	Effect of profit warning announcements on share returns of companies listed at the NSE over period between 2015 and 2016	Event Study Methodology	Resulted to a conclusion that the profit warnings had negative impact on share returns at the NSE as evidenced by the abnormal negative returns realized after the announcement and evidence of insider trading from the abnormal positive returns pre announcement	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Kanyiri (2016)	Study of effect of profit alerts on stock returns of firms listed at the NSE from the period between 2014 and 2015	Event Study Methodology	stock returns are negatively affected by profit warning announcements evidenced by a decline in abnormal returns over the event period	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Naliaka (2014)	Effect of profit warning on share prices of companies listed at the NSE over the period between 2009 and 2013	Event Study Methodology	Profit warnings have a negative effect on the stock prices with exceptions of those that were made earlier in the financial year and accompanied by optimistic expectations towards the end of the year	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018

Patrick (2014)	Stock price response to earnings announcement on a sample of five companies listed at the NSE over a two year period, 2012 to 2013	Event Study Methodology	Study resulted in evidence of abnormal returns dominating 25 days before the announcement date and hence drawing suspicions of insider trading	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Aboagye and Opoku (2013)	The effect of Earnings announcement on share prices in Ghana: A case study of Ghana Stock Exchange 2010 to 2013	Event Study Methodology	Abnormal returns around the announcement period were not significant and hence had no major effect on share prices	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Kiremu et al(2013)	Stock price and volumes reactions to annual earnings announcement: A case study of NSE	Event Study Methodology	The results indicated that the AAR, CAAR and TAR around the event date were not significant, consistent with EMH	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018
Bulkley and Herrerias (2005)	Stock Returns following profit warnings	Event Study Methodology	Resulted in negative abnormal returns following both qualitative and quantitative warnings with the latter being of smaller absolute size.	Lack of consistency in the findings of the effect of profit warning announcements on share returns	Effect of profit warnings by companies listed at NSE on share returns between 2015 and 2018

Summarised by author, 2018

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Research methodology gives the procedures and methods used to carry out the research study. It describes the research design adopted, the population targeted and the size of the sample and how it was drawn. It finally delves into details of how data was collected and how it was analysed to reach a meaningful conclusion.

3.2 Research Design

The objective of this study was to examine the effect of profit warning announcements on the share returns of companies listed at the NSE. This objective was achieved through the use of the descriptive research design. A descriptive study is done in order to determine the characteristics of the variables under study (Sakaran, 2003). This study has sought to describe the behaviour of change of share prices hence share returns around profit warning announcements.

Event study methodology was used to measure the impact on changes in shares prices of the profit warning announcements over a period of 10 days pre and post the announcement date.

3.3 Population

This study was conducted on all the companies that were listed at the NSE and had issued profit warning announcements between January 2015 and June 2018.

A total of forty companies issued profit warning announcements between years 2015 and June 2018 and this represented the entire population over the study period.

3.4 Data Collection

The study was conducted using secondary data. The share prices whose changes were used to calculate share returns were obtained from the NSE database. More information on the profit warnings was obtained from the companies' websites, CMA website and press releases on local newspapers as this is the mode commonly used by companies to relay this kind of information to the public as a means of meeting the regulation set by CMA.

3.5 Diagnostic Tests on data reliability and validity

The data that was used for this study was the actual daily share prices of the companies' shares at the NSE which issued profit warnings between years 2015 and June 2018. This data could therefore not be manipulated and was hence reliable. The data analysis method where actual daily returns, abnormal and cumulative returns were determined was by use of standard formulae and this was ensured through the use of the descriptive design.

3.6 Data analysis

This research study was an event study. The event study methodology was developed by Fama et al (1962) to test market efficiency on stock split announcement. The event period was 21 days, where 10 days represented pre announcement dates, day 0 was the event date and the next10 days represented the post announcement period.

Figure 3.1: Event study timeline
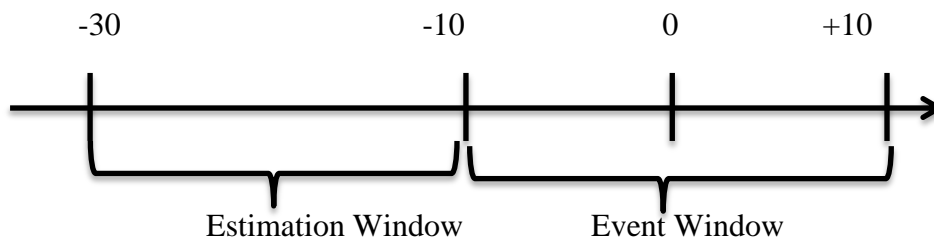
The analytical model was used in determining the actual daily share return, the abnormal return, the average abnormal return and finally the cumulative average abnormal returns.

Return

The actual daily share return was calculated by deducting the opening share price, P_t , from the closing share price, P_{t-1}, then dividing the result with the opening share price.

$$R_{it} = \frac{P_{t-1} - P_t}{P_t}$$

Abnormal Return (AR)

The abnormal return was determined by deducting the expected return from the actual return for the days under study. The alpha and beta parameters used in the calculation of the expected return were estimated using the ordinary least square, OLS, regression and the return on market portfolio was from the NSE all-share index. The model used to determine the expected return is also known as the market model. In this case, it was a single factor model as only the market return was taken to be the independent variable to determine share return. This model is popular with many scholars

conducting event studies, who include Kabiru, Ochieng and Kinyua (2015), Kamau (2016), Patrick (2014), Otieno and Ochieng (2015) and Kanyiri (2016).

$$ARit = Rit - ERit$$

$$ER_{it} = \alpha_i + \beta_i R_{mt} + e_{it}$$

Where AR_{it} was the abnormal return for company i at time t, R_{it} was the actual return of company i at period t, $E(R_{it})$ was the expected return for company i at time t, α_i was the alpha(intercept), β_i was the beta (a regression constant), R_{mt} was the return in the market and e_i was the error term.

Average Abnormal Return (AAR)

To gain a more comprehensive market perspective of how profit warning announcements affect the NSE, an average abnormal return (AAR) was calculated by getting an average of the abnormal returns for all companies on every particular day over the event period.

$$AAR = \frac{1}{n} \sum_{t-1}^{n} AR_t$$

Cumulative Average Abnormal Return (CAAR)

The magnitude of the abnormal returns over time was determined by calculating the company specific CAAR. This was calculated by summing up the average abnormal returns incrementally by day over the event window, starting with day -10. This can also be obtained by getting an average of the cumulative abnormal returns for each company over the event window.

$$CAAR = \sum_{t=1}^{n} AAR$$

The test of significance of the abnormal return and average abnormal return was done using the t-statistics from the excel application.

$$tAR = AAR \Big/ \frac{\sigma AR}{\sqrt{N}}$$

$$tAAR = CAAR \Big/ \frac{\sigma AAR}{\sqrt{N}}$$

Where t_{AR} and t_{AAR} are the t- statistic,

AAR_t is the average abnormal return over time t

$CAAR_t$ is the cumulative average abnormal return over time t

σ Is the standard deviation of abnormal returns at time t

N is the population size

The test of significance of the average abnormal return and cumulative average abnormal return prior and post the profit warning announcement in a paired sample statistical analysis was done using the t-statistics. These statistics were calculated with the help of SPSS software.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This chapter gives details on how the analysis was conducted and provides the findings of the research study based on the objectives stated. It also presents the discussion on the interpretation drawn from the same findings.

4.2 Descriptive Statistics

This study adopted the event study methodology where an event window was taken to be 21 days, -10 days prior the event date, +10 days post the event date and the actual date the announcement was made taken as day 0. The closing day stock prices were obtained from the NSE and these had already been adjusted for dividends. The calculations were done by the use of the excel application and IBM SPSS application. The actual return was determined by subtracting the stock's previous day closing price from the current day closing price and dividing the result by the previous day closing price.

The market model was used to determine the expected returns. The alpha and beta parameters were estimated using the ordinary least square method by regressing the individual stock returns on the Nairobi All Share Index returns over the 20 days estimation period prior the event window, that is days -11 to -30. The abnormal returns (AR) of each individual stock were thereafter calculated by subtracting the obtained expected return from the actual return for each day. The cumulative abnormal return (CAR) for each company was calculated by adding the abnormal return of the previous day to the current day's abnormal return, starting from day -10

to day +10. This was done to determine the cumulative effect prior the announcement all the way to the period after the announcement was made.

The abnormal returns for all the 40 companies are as represented in Appendix 2.

The companies' cumulative abnormal returns are presented in Appendix 3.

To gain a more comprehensive perspective of how profit warning announcements affect the NSE, an average abnormal return (AAR) was calculated by getting an average of the abnormal returns for all companies on every particular day over the event period.

The cumulative average abnormal returns (CAAR) were then calculated by summing up the average abnormal returns over the event window. This could also be obtained by getting an average of the cumulative abnormal returns for each company over the event window.

4.3 Diagnostic tests for AAR and CAAR

The study was on all the 40 companies that had issued profit warnings between January of 2015 and June of 2018 and were currently trading on the NSE. The individual companies ARs and CARs were used to determine the AARs and CAARs and the findings are as presented in the tables and graphs below.

4.3.1 Average Abnormal Returns (AAR)

Table 4.1: Average abnormal returns

Day	AAR	Standard Deviation	at 95% confidence level
			t statistic of AR
10	-0.39%	0.0401	-0.6111
9	0.98%	0.0322	1.9195
8	-0.45%	0.0385	-0.7320
7	0.51%	0.0302	1.0716
6	-0.37%	0.0424	-0.5570
5	-0.17%	0.0373	-0.2850
4	0.14%	0.0483	0.1796
3	-0.48%	0.0281	-1.0890
2	-0.13%	0.0467	-0.1783
1	-2.19%	0.0526	-2.6301
0	-1.17%	0.0521	-1.4174
-1	-0.54%	0.0318	-1.0658
-2	-0.81%	0.0482	-1.0587
-3	1.65%	0.0467	2.2334
-4	0.56%	0.0385	0.9112
-5	-0.06%	0.0339	-0.1055
-6	-0.55%	0.0276	-1.2503
-7	0.17%	0.0306	0.3542
-8	0.01%	0.0323	0.0280
-9	0.33%	0.0299	0.6989
-10	0.27%	0.0401	0.4230

Source: Research findings

Figure 4.1: Average Abnormal Returns trend

AAR %
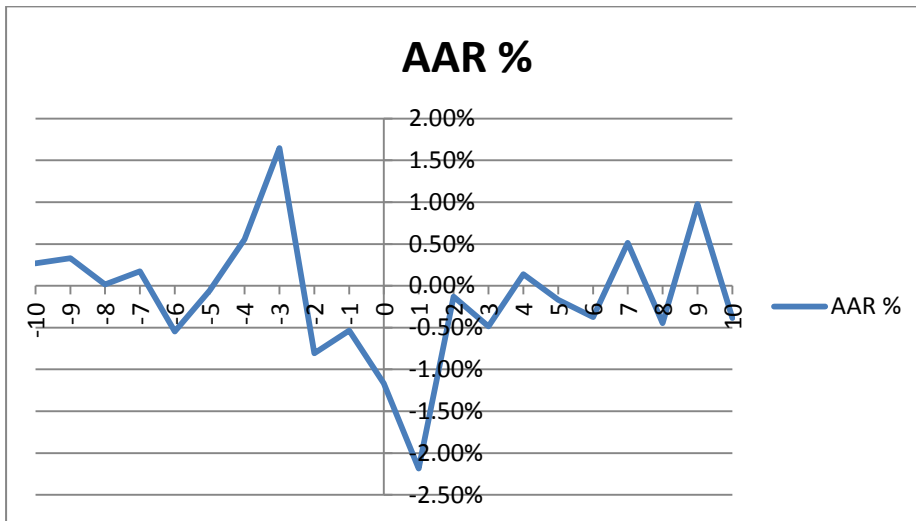
Source: Research findings

From the graph in figure 4.1, a sharp increase in average abnormal returns is seen 6 days to 2 days prior the profit warning announcement which then starts to decline thereafter with a sharp negative increase in abnormal returns noted a day after the profit warning announcement is made. This slowly starts to reverse in the days after the announcement fluctuating between -0.50% and +0.50% abnormal returns. This is also reflected in abnormal returns registered which are statistically significant at 5% significance level with a t statistic value of +2.2334 on day -3 and value of -2.6301 on day +1.
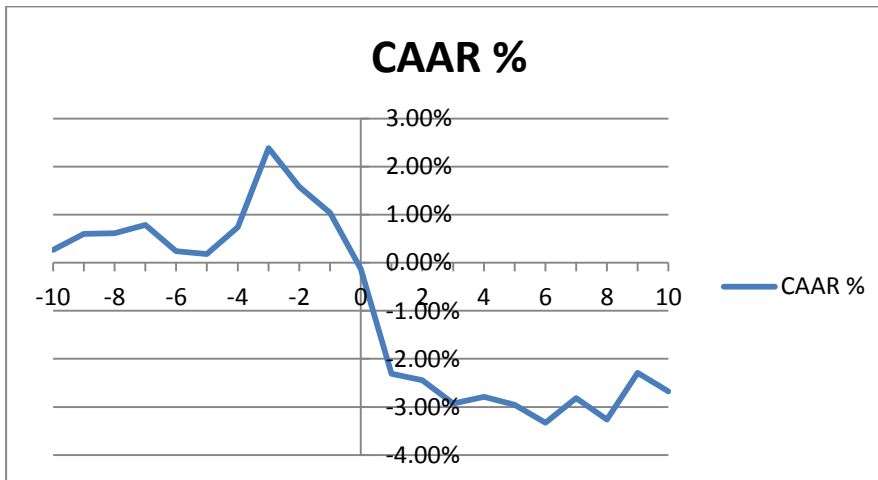
4.3.2 Cumulative Average Abnormal Returns (CAAR)

Table 4.2: Cumulative Average abnormal returns

Day	CAAR	Standard Deviation	at 95% confidence level
			t statistic of AAR
10	-2.68%	0.23184	-0.72975
9	-2.29%	0.22462	-0.64422
8	-3.26%	0.21747	-0.94954
7	-2.82%	0.21726	-0.82065
6	-3.33%	0.21053	-1.00072
5	-2.96%	0.19482	-0.96017
4	-2.79%	0.18731	-0.94193
3	-2.93%	0.16463	-1.12444
2	-2.44%	0.15397	-1.00342
1	-2.31%	0.14734	-0.99210
0	-0.12%	0.13783	-0.05696
-1	1.04%	0.11563	0.57040
-2	1.58%	0.11735	0.85079
-3	2.39%	0.09665	1.56090
-4	0.74%	0.09692	0.48115
-5	0.18%	0.08414	0.13679
-6	0.24%	0.07862	0.19192
-7	0.78%	0.06789	0.73015
-8	0.61%	0.05926	0.65362
-9	0.60%	0.05195	0.72819
-10	0.27%	0.04010	0.42305

Source: Research findings

Figure 4.2: Cumulative Average Abnormal Returns trend

Source: Research findings

Consistent with the average abnormal returns graph, the graph in figure 4.2 shows the cumulative average abnormal returns consistently increasing to peak on day -3 and thereafter starting to decline after the announcement day then fluctuating around -3% thereafter. There is a large negative cumulative average abnormal return noted immediately after the announcement day. In addition to this trend however, the t statistic values were not statistically significant at 5% significant level.

4.4 Paired Sample Statistics and T test

4.4.1 Paired Sample Statistics for Average Abnormal Returns (AAR)

This was done to compare the average abnormal returns before and after the profit warning announcement.

Table 4.3: Paired sample statistics for AAR

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	AAR Before	0.1043%	10	0.69633%	0.22020%
	AAR After	-0.2551%	10	0.82573%	0.26112%

Source: Research Findings

From the above results, average abnormal returns before the announcement had a positive mean of 0.1043% and those after had a negative mean of -0.2551%. This shows general negative returns to investors who traded after the profit warning announcement was made. The paired sample t- test for AAR shows a t statistic value of 1.218 as shown on table 4.4 below.

Table 4.4: Paired Sample Test for AAR Before and AAR After

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	AAR Before - AAR After	0.35937%	0.93272%	0.29495%	-0.30786%	1.02660%	1.218	9	.254

4.4.2 Paired Sample Statistics for Cumulative Average Abnormal Returns (CAAR)

This was done to compare the cumulative average abnormal returns before and after the profit warning announcement.

Table 4.5: Paired sample statistics for CAAR

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CAAR Before	0.8427%	10	0.68476%	0.21654%
	CAAR After	-2.7807%	10	0.36213%	0.11452%

Source: Research Findings

The findings for CAAR are seen to be consistent with those of AAR. The mean value of the cumulative average abnormal return after the announcement was negative, at -2.7807%, while that from before the announcement was positive, at 0.8427%. The paired sample t- test shows a t statistic value of 16.387 as shown on the CAAR before and CAAR after paired sample output below.

Table 4.6: Paired Sample Test for CAAR Before and CAAR After

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	CAAR Before - CAAR After	3.62338%	0.69923%	0.22112%	3.12318%	4.12358%	16.387	9	.000

Source: Research Findings

4.5 Summary and Interpretation of the findings

The sharp increase in positive average abnormal returns noted 3 days prior the announcement gives evidence of insider trading and information leak that led to some investors making positive abnormal returns prior to the announcement. However, a day after the announcement is made, a sharp negative return of the average abnormal returns is noted. This outcome is in line with the general sentiments that profit

warnings are viewed as negative news when released into the market. This then starts to slowly average out in the days following the announcement and stabilizing between -0.50% and +0.50% average abnormal returns.

The results on the cumulative average abnormal returns are consistent with those of the average abnormal returns where a positive increase in the CAAR prior to the announcement day is noted and soon after the findings reveal a continuous negative trend following the profit warning announcements.

The inferential statistics employed by calculating the paired sample statistics and paired sample t-test results revealed a mean positive AAR prior to the announcement showing evidence of insider trading by some investors. This is supported also by the fact that the absolute value of the mean value before the announcement being smaller, 0.1043%, than that after the announcement, -0.2551%. The negative mean after the announcement confirms that this piece of information was received negatively by the market.

The t- statistic helps in determining if the mean of AAR before and after the announcement are statistically different. In this case, the hypothesized value of the t-statistic is zero, meaning that the anticipated value of the AAR mean before the announcement is equal to that of the AAR mean after the announcement. A high absolute t- statistic shows indications against the null hypothesis. The paired sample t-test for AAR shows a t statistic value of -1.218 which is in absolute value greater than zero hence revealing that AAR before and AAR after profit warning announcement are statistically different at 95% confidence level.

The findings for CAAR are seen to be consistent with those of AAR affirming that the market views profit warning announcements as negative news as the aggregate value

of the AAR is negative after the announcement. The positive value of the CAAR before the announcement supports the possibility of insider trading as the average abnormal returns were cumulatively positive for this period. The t statistic value of 16.387 is also in absolute value greater than zero revealing that CAAR before and CAAR after profit warning announcement are statistically different at 95% confidence level.

The results of this study are consistent to other studies carried out in this area. The findings of the search on 21 companies at the NSE done by Naliaka (2014) indicated that profit warnings had negative effects on stock prices in Kenya with the exemption of those released earlier in the financial year. Mbiyu (2017) research study on 28 companies listed at the NSE revealed significant abnormal returns a day before the announcement showing possibility of insider trading and there after significant negative returns. Kanyiri (2016) from his study on 13 companies listed at the NSE showed that stock returns are negatively affected by profit alerts and this was evidenced by decline in abnormal returns around the event announcement period. There was also possibility of insider trading where there was positive cumulative abnormal return recorded on day -20. Gathoga (2016) from his study on 35 listed companies in East Africa had results which revealed 73.5% of the companies recording decreases in share returns, 23.5% recording increase in share returns and 3% showing no change in returns following the profit warning announcements.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter summarizes the findings of the research study and draws conclusions thereof. It goes further to give recommendations based on findings and details the limitations of the study.

5.2 Summary of the findings

The objective of this research study was to determine the effect that profit warning announcements have on share returns at the NSE. The event study methodology was used with an event window of 21 days chosen, 10 days prior, 10 days after the profit warning announcement and day zero taken as the announcement date. The market model was used to determine the expected returns with the NASI taken as the market proxy and share data for the period of 20 days before the event window of the company and of the NASI used to determine the alpha and beta parameters using the ordinary least square method. The abnormal returns were then determined by subtracting the actual returns from expected returns.

From the analysis, positive average abnormal returns, which peaked at 1.65% on day - 3, were noted prior to the profit warning announcements showing evidence of insider trading. These returns were however less in absolute value in comparison to the negative average abnormal returns of -2.19% noted 1 day after the announcement date. This indicates that only a few investors had access to the information prior the announcement and had sought to capitalize on this. The magnitude of the AAR immediately after the announcement also indicates that profit warnings are majorly

interpreted as negative information by many investors and are not anticipated by a majority of investors. It also affirms the assertion by the efficient market hypothesis that new information is quickly incorporated into security prices.

The cumulative average abnormal returns bore the same trend as that of the AAR with all the CAAR values being positive prior to the announcement, indicating insider trading. They however quickly reversed to negative values starting the day after the announcement. The persistence of the CAAR with the negative trend on the days following the announcement shows that the market takes time to recover from the negative effects on returns. This again is proof that the market views profit warnings as negative information.

The results from paired sample analysis revealed positive AAR mean in the period prior to the announcement and negative AAR mean in the period after the announcement. The positive AAR mean is evidence of persistent insider trading prior to the profit warning announcements at the NSE as it consists of the average of the 40 companies in the study as opposed to results from one or a few occurrences. The t statistic values for both the AAR and CAAR were statistically significant at 5% significance level.

5.3 Conclusions

It is a requirement by CMA that companies listed at the NSE issue profit warning announcements when they determine that the projected earnings of the current year will fall by at least a quarter the preceding year's earnings, failure of which attracts penalties. From the above summary of the findings, we note that the NSE is a semi strong efficient market where profit warning announcements are absorbed quickly by the market as negative news as evidenced by the large negative average abnormal

returns a day after the announcement and is therefore also consistent with existing literature on efficient market hypothesis. Management therefore has a task to ensure adequate information is relayed in the right way and at the right time so as to avoid or minimize erosion of firm value.

We also however note that that there is insider trading at the NSE. This is supported by statistically significant positive average abnormal returns earned by some investors a few days prior the announcement. As this information was not available to the public, the market cannot be construed to be a strong form of EMH. From the agency theory, an agency problem can be drawn from this where management are not seen to be working in the interest of all shareholders. The management should disclose information to all the shareholders and by extension public in an accurate and timely manner with an aim of reducing information asymmetry. These findings also create an opportunity for policies to be created by the regulators to address the information asymmetry issue in the market.

5.4 Recommendations

This section gives recommendations on the area study as aided by the findings drawn from this research. The issuance profit warning announcement is a requirement by the CMA and from the findings and conclusions of this research study, the market interprets it as negative news. There is also evidence of insider trading noted. The first recommendation would be for the CMA to enforce more detailed disclosure on the causes that have resulted in the earnings shortfall and what the managements' view is on the same. This would provide investors with more comprehensive information which would help avoid erosion of company value around the announcement dates.

The second recommendation would be for the CMA to hold the senior officers of the company responsible and penalize them for any information leak which leads to some investors having unfair advantage over others and making abnormal returns prior to the announcement. Policies with clear guidelines should therefore be drawn around this especially because the NSE has both local and foreign investors who need to be confident in the market in which they are investing.

The final recommendation is for investors to seek for more information about the company, its fundamentals, and the general economic environment even as they consume the information from profit warning announcements. This will prevent them from making decisions as a result of panic and would also avoid negative returns in some cases.

5.5 Limitations of Study

The study was limited to the companies that had issued profit warnings from January 2015 to June 2018. The findings and conclusion drawn is therefore based only on the companies considered over this period even though there are companies which had issued profit warning announcements in prior years.

The study also focused only on the companies that had issued profit warnings announcements and were listed at the NSE. There are therefore companies key in the Kenyan market that had issued profit warnings but are not listed at the NSE and hence were not included in the study.

There lacks a central database containing all the information pertaining profit warning announcements in Kenya. This has left researchers with a hard time of locating this

information as it has been left at the discretion of companies on the choice of the avenue they want to use to relay this information to the public.

The study was done by use of only quantitative data, which were the share prices of companies. Qualitative information was therefore not taken into consideration when conducting this study.

5.6 Recommendations for Further Studies

This study used the event study methodology with an event window of 21 days and 20 days estimation window. A study with a longer event and estimation period is recommended to determine if the number of days considered would give results that are consistent to those obtained from this study. This study used a single factor market model for analysis. A recommendation is therefore made to employ a multi factor model with focus on the current issues affecting the market at the time of the study to determine if similar results would be arrived at. Another recommendation would be for the study to focus on the different sectors at the NSE so as to determine if investors react the same way when it comes to trade activities across segments.

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APPENDICES

APPENDIX 1: List of Companies which issued profit warnings between 2015 and June 2018

APPENDIX 2: Companies Abnormal Returns

APPENDIX 3: Companies Cumulative Abnormal Returns