# THE EFFECT OF PROFIT WARNING ANNOUNCEMENTS ON THE SHARE RETURNS OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

BY

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D63/79528/2015

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

NOVEMBER 2016

# DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the University of Nairobi for academic credit.

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# ACKNOWLEDGEMENT

First and foremost, I thank the Almighty God for His grace, favor and providence which enabled me to undertake this research project.

My deepest gratitude goes to my supervisor, Dr Mirie Mwangi for the support, wise guidance and timely feedback throughout the project that enabled me to successfully complete my research.

Special acknowledgement goes to my dad, Mr. Kamau for giving me invaluable support, motivation and for his great words of wisdom during my studies. May God continue to bless him abundantly. Finally to my family, friends, lecturers and fellow students, thank you for your input and support during the entire course and while undertaking the research project.

# DEDICATION

This research project is dedicated to my family, my parents Mr Paul Kamau and Mrs Jane Kamau, my sisters and brother for their continued support, encouragement and invaluable inspiration during my entire academic period and towards the success of this research project.

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# LIST OF ABBREVIATIONS

| ANOVA | - | Analysis of Variance |
|---|---|---|
| AR | - | Abnormal Returns |
| CAPM | - | Capital Asset Pricing Model |
| CAR | - | Cumulative Abnormal Returns |
| CDS | - | Central Depository System |
| CMA | - | Capital Market Authority |
| EMH | - | Efficient Market Hypothesis |
| ER | - | Expected Return |
| EU | - | European Union |
| IPO | - | Initial Public Offer |
| MP | - | Market Price |
| NASI | - | Nairobi All Share Index |
| NBK | - | National Bank of Kenya |
| NSE | - | Nairobi Stock Exchange |
| PEAD | - | Post Earning Announcement Drift |
| R&D | - | Research and Development |
| RM | - | Return on Market |

# ABSTRACT

Profit warning announcement forms an integral part of mandatory disclosures that are set up by the regulatory bodies. The capital markets have evidenced immerse growth and innovations that have led to more stringent measures being put in place to prevent insider trading and fraud cases. The disclosure of the profit warning aims to ensure transparency and information asymmetry in the securities market. When there is material expected negative deviation of profits compared to the previous period firms have an obligation to inform the shareholders and the public at large. The profit warning announcements have being associated with a negative market reaction and huge abnormal returns. This study examines the effect of profit warning announcements on the share returns at the NSE. The report is based on the 64 companies listed at the NSE and 16 sampled firms drawn from companies that have issued profit warnings for the period 2015 to 2016. The research design used was the event study using the market model which assessed the impact of announcements on the returns. The event window is twenty one days (-10,+10) and an estimation period of 30days. The CAPM model was used to estimate the expected returns. The CAR during the period amounted to -7.24%. The AR and CAR were plotted on a graph and there was a downward trend after the announcements showing the negative market reaction. The mean of the abnormal returns was -1.21% while the standard deviation was 4.80% the day after the event. The CAR mean was 3.83% and the standard deviation was at 18.17% the day following the announcement. The regression analysis indicated that the independent variable which is the market return can only explain and predict shares return during profit warning announcements by 6.72%. The study concludes that profit warning announcement has a negative impact on the shares return at the NSE. This is evidenced by the negative abnormal returns realized and the test of significance using F statistic which is at 0.94. The study recommends firms to give more details in the profit warnings in order to inform the shareholders on the causes of the deviations in earnings. Further, the study recommends that regulatory bodies should put more stringent measures to avoid insider trading and ensure that there is no leakage of information. Further areas of study include the factors influencing the issue of profit warnings by firms and measures taken by firms to reduce earning deviations in the subsequent years.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Securities markets play a very important role in the financial system in facilitating growth of all sectors of the economy by channeling funds from the surplus areas to the deficit areas (Kumar, 2015). Corporate financial disclosure is very crucial for ensuring the operational proficiency of efficient capital market (Hearly and Palepu 2001). Disclosure in a listed company annual report can be categorized as either mandatory disclosure or voluntary disclosure (Gunawan, 2015). Companies that make voluntary disclosures freely choose to provide other information considered relevant during decision making to the users of annual reports (Nuswandari, 2009). Mandatory disclosure is defined as any information put into the public domain in order to comply with the requirements of laws and regulations (Shehata, 2013). The laws and regulations vary from country to country depending on the jurisdiction and the regulatory body of that particular country.

Mandatory disclosure mainly aims at the quantitative data which excludes the non-financial performance measures for example customer relations, innovation, research and development (R&D) and corporate governance (Kowalewska, 2015). Earnings announcements is the final stage in the accounting process which is achieved by releasing and publishing the all the components of financial statements to the public (Basu, Duong, and Markov, 2011). The main formal and legal information investor gets is the one from public statements, annual reports, the information required by the regulator and the information the company voluntarily decides to share publicly (Bagherpour, Mohammad and Mehdi, 2008). Investors are keen on the information

and announcement made by the listed companies due signaling effect that it communicates. Companies issue profit warning announcements to inform their investors of any expected deviation of profits from the previous reported accounting period.

The regulatory bodies across the world have recognized the need for information which has necessitated stringent rules on disclosures. Profit warning announcement is one of the mandatory disclosures in Kenya. To ensure efficient and optimal allocation of the funds in the market, the stock market valuation process and market prices determination should be correct (Arnold, 2008). The incorrect stock valuation can be dangerous in the future to the economy because it leads to improper resource allocation and poor value creation. In Kenya, a total of sixteen listed companies at the NSE in Kenya issued profit warning announcement in the 2015 financial year to alert the investors of the profits decline. This in turn had an effect on the returns of shares listed at the NSE. The study seeks to identify the effect of profit warning announcements on the share prices and how the investor's shares returns are affected.

### 1.1.1 Profit Warning Announcement

Profit warning announcement is defined as an alert issued by management on the earnings projections to inform the stock market players and the public of an expected earnings shortfall (Elayan and Pukthuanthon, 2009). The profit warnings are released to the public before the company announces the actual earnings report through the annual audited financial statements. According to Skinner (1994) management's motivation to issue profit warning announcements is to prevent court cases and also to preempt the reputation consequences of large negative earnings surprises. Management must strategically decide the degree of information to disclose through

profit warning announcement to the securities market (Heesters, 2011). Managers can issue a quantitative or a qualitative profit warning which is determined by the information they wish to disclose to the public and its relevance to the market players.

Company's profits have been used to evaluate the financial performance. After a company releases the profit warning, the investors are concerned about the company's profitability and competitive capability in the long-run which can cause a negative or positive market reaction as reflected by the share returns (Tumurkhuu and Wang, 2010). If the share returns of a company decreases due to declined earnings it will increase the firms cost of capital. The rating of the company in the market will lower leading to difficulties while raising additional capital. To prevent this from happening companies should issue the profit warnings to prepare and shield the investors from sudden negative market reaction from the release of audited financial statements. Prevailing share returns should therefore reflect all the available information about the company (Bodie, Kane & Marcus, 2011).

Aharony and Swary (1980) found out that management use profit warning announcements as a signaling tool to convey information about the future prospects of a firm. Like dividends announcements, profits have very useful information that is reflected in the stock prices immediately when an announcement is made. The importance of profits levels have been a very relevant area in financial accounting because it explains what monetary performance the company has achieved (Booth et al., 2011). The main measures of profit are the net profit margin, gross profit margin and comparative analysis. Year to year profit comparison provides a good indication of the expected change in the profit level. Profit warning announcements are measured using the comparative profit analysis by comparing the prior year profits

and the current year profits. When the profit level deviates negatively from previous financial year profit a company is mandated to issue the warning announcement.

### 1.1.2 Share Returns

Share returns can be defined as the capital gains realized from the appreciation of market prices and the dividend received over a particular period of time on a particular share expressed as a function of the initial investment (Dimitropoulos and Asteriou, 2009). In the capital markets, investors trade expecting that their initial investment in shares will fetch a higher price than the initial capital. This is based on the fact that the investor incurs costs, risks and expenses which he expects some compensation. The value investing of shares involves buying securities which are trading at market prices lower than their intrinsic market value (Signh and Kaur, 2015). Market price of a stock affects the investors' perception on the performance of the stock because its determined based on the demand and supply in the market. Due to various market expectations and heavy speculations market value of a share deviates from its book value.

The stock price in the secondary market is either overpriced or underpriced which later determines the shares return. Investors buy undervalued stock with the expectation that in future the stock prices will usually rise up leading to the realization of capital gains. The investors will sell overvalued stock if there is a speculation that the market prices will fall in the future in order to avoid future losses. Using the efficient market hypothesis, the share prices reflects all available information concerning the stock and provides an unbiased estimate of the share return (Robert and Mizik, 2009). The stock value can be estimated by the investors using fundamental, technical or psychological analysis. Focusing on the fundamental

analysis, Gottwald (2012) defines this share value as the justified market price which expresses the real worth of a stock.

Due to random valuations of firms by public capital markets, managers provide the information known by them alone to the capital markets to correct the wrong valuations since stocks value is dependent on information (Bagherpour and Mehdi, 2008). Market price based financial performance measures have proved to be accurate method to measure value for firms (Sandoval, 2001). Changes in the relative levels of the price-earnings ratio may signal that the market is changing its expectations about the future earnings potential of a firm (Bajkowski, 2000). The capital gains and the dividend paid are the main measure of the shares returns. The changes in the market prices per share (MPS) determine the share return which could be either positive or negative returns.

### 1.1.3 Profit Warning Announcement and Share Returns

Capital markets react to various corporate announcements like the profit warning announcement which is later reflected in the shares return achieved from the market price volatility. The efficient market hypothesis (EMH) states that prices should fully and instantaneously reflect all publicly available information (Alzahrani, 2009). The adjustment of security prices to new information leads to three forms of market efficiency, which are the weak form efficiency, semi-strong market efficiency form and strong form of efficiency (Fama, 1970). According to this theory there is a negative relationship between the profit warnings announcements and the shares return. The investors react negatively when profit warnings are issued leading to decline in market prices which lower the share returns. Most importantly investors are

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also keen when information disclosure by a company through a profit warning announcement does not occur in the stock exchange.

According to Ross (1972) agency relationship occurs when parties designated as the agent acts on behalf of the principal during decision making. The agency relationship separates firm's ownership and control. The separation of ownership and control brings a difference in the type, quality and quantity of information known by management and the market participants (Elayan and Pakthuanthong, 2009). For investors to make well informed rational decisions, all information and transparency should be available. There is a positive relationship between the profit warning announcement and shares return from the theory. The profit capacity of a firm affects its level of dividend per share. The investor believes that the management releases the profit warnings for the benefit of the shareholders by informing them of the financial performance of the firm. According to Lintner (1956) top management formulate dividend policies based on the earning stability.

Since top management is well aware of the operations and future prospects of the firm they should disclose the information to the shareholders. The decisions that investors make when investing in the capital markets is usually reflected in the share returns based on the information available to them. If a firm misleads the investors about the future prospect of the firm it will be difficult for investors to make investment decisions (Bodie, Kane & Marcus, 2011). Therefore, profit warning announcements from the firm are essential in order to make a right decision on the valuation of a share and thus allocate capital optimally (Tumurkhuu and Wang, 2010).

The relationship between stock prices and unexpected profit change is positive and hence the market reaction is more significant (Qiang, Qiao and Rong, 2010). The

profit warnings announcement comes before the annual earnings announcements and hence prepares the investor on what to expect as the actual earnings. The signaling effect makes the market to react in accordance to any relevant information that is released to the public. Information disclosure hence enhances market efficiency by providing informed traders with costless information that ensures market efficiency (Georgakopoulos, 1996). The company's earnings are a main determinant of the shares returns, because the earnings are the main performance measure of the firm and its prospects for growth and success in the future (Tumurkhuu and Wang, 2010). When a company issues an announcement to warn investors about its future performance the market responds as reflected by the market prices and the returns of the stocks.

### 1.1.4 Firms Listed at the Nairobi Securities Exchange

The Nairobi Securities exchange was established in 1954 and is regulated by the CMA. Currently there are sixty four listed companies in the securities exchange grouped into different segments in the economy. Companies listed at the NSE are mandated to disclose their earnings to the public informing them about the financial performance of the organization. The Kenyan Capital Markets Authority (CMA) through legal notice number 60 of 2002 in The Requirements Public Provisions, & Schedule (2002) made profit warning announcement a mandatory disclosure. The notice stated that when a material discrepancy of the forecasted earnings for the current year and the earnings level in the previous financial year arises, a firm shall disclose such information by making a public announcement. The material discrepancy refers to the earnings being at least 25% lower in the current year to date than the earnings level in the previous financial year.

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To ensure compliance with the CMA regulations firms that predict their earnings will be less than 25% of the previous year's earnings have been keen to issue profit warnings announcements. In the 2015 financial year the total number of profit warnings amounted to sixteen which the study will be focusing on. One of the major factors contributing to the increased number was due to the weakening Kenya Shilling that led to many firms incurring foreign exchange losses. The firms that were adversely affected by the devaluation of the currency included Car and General, East African Cables among others (NSE, 2016). Other firms that issued profit warnings include Standard Chartered Bank, Uchumi Supermarket, Express Ltd, Standard Group, Atlas Development, TPS East Africa, Mumias Sugar, BOC, Liberty Holdings, Pan African Insurance, BRITAM, Home Africa and Kurwitu Ventures.

Failure to comply with the mandatory requirement has led to companies been penalized by the CMA. Examples of listed companies in Kenya that have failed to comply with the CMA regulations include CMC motors in 2012, Centum in 2013 and National Bank of Kenya (NBK) in 2016 who issued the announcement on a day before the actual earnings announcement (CMA, 2016). Competition, the global economic environment, company reconstruction, business re-engineering, cash flow problems, terrorist threats, epidemics, business interruptions and accounting adjustments were the major reasons highlighted in the issue of profit warnings. The profit warnings announcements have led to the decline in the shares returns. This has adversely affected the volume of shares traded which decreased by 7% in 2015 compared to 2014 and a low market capitalization which declined by 10.1% in 2015 compared to 2014. The NSE has continued to experience a looming bearish market (NSE, 2016).

## 1.2 Research Problem

The major goal of investors at the securities market is to ensure that they get value for their investment. Investors are concerned about company's profitability and competitive power in the long-term after the company releases the profit warning due to the market reaction that affects share returns (Tumurkhuu and Wang, 2010). Profits are the main indicator of a firm's future growth and liquidity. The profit warning announcements protect the interests of the investors, build the investors' confidence in the market and correct the market expectation regarding firm valuation. The shares returns are dependent on the firm's financial performance both in the short run and in the long-run. Post earnings announcement drift (PEAD) explains that when profit warming announcements are released, cumulative abnormal returns (CAR) continue to drift based on the news released (Ball and Brown, 1968). The profit warning announcement results in a negative market response which in the long-run helps for allocating the capital efficiently and minimize information asymmetry (Tumurkhuu and Wang, 2010). The relationship between profit warnings and shares returns is not clear and the study seeks to establish the effect.

There has been a huge increase in the number of profit warnings announcements at the NSE. The earnings of the firms listed at the NSE have been decreasing making the listed firms to issue the profit warnings. The major factors that attribute to the reduced profits are due to the macro- economic environment and also the unique challenges faced by individual firms (NSE, 2016). The Uchumi Supermarket and Mumias Sugar Ltd profit warning announcements stated that working capital and cash flow problems was their main challenge, Atlas Development Ltd and BOC Kenya limited highlighted accounting adjustments while the bearish market at the NSE was the main factor for profit decline as stated by Britam and Pan African Life insurance announcements.

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Mitau, (2014) noted that the profit warnings announcements led to market reaction that has affected the shares returns. The decreasing dividend payout due to low earnings has adversely affected the shares returns. There has been abnormal shares return after the announcements worth the study.

The evidence of the continuing drift in returns subsequent to an announcement dates back to the first-published event study evaluating the market reaction to earnings announcements (Ball and Brown, 1968). The post-earnings-announcement drifts demonstrate that the information in the earnings has predictive power. According to Eleyan and Pukthuanthong (2009) the impact of market reactions is less when management makes the warning earlier than when the actual earnings release occurs. Firms with higher information asymmetry in the market are faced with larger price drops following warning announcements. Predictable reactions such as market overreactions and under-reactions and subsequent corrections should not exist in a perfectly efficient market. Profit warnings announcements are events in the securities markets are information and also decisions that have direct consequences to the financial performance and the risk profile of the firm (Ikenberry and Ramnath, 2002). Suka, (2011) did a study on the information content of the profit warnings to evaluate the effect on the stock returns at the NSE. Kiminda and Githinji, (2014) study focused on the effect of profit warnings announcements on the stock's performance and found that negative abnormal returns are generated prior and after the profit warning announcements. Asudi, (2011) evaluated the effect of profit warnings on the stock values and observed a high abnormality during announcements. There have been few studies on the effect of profit warnings announcements on the shares return despite the experienced high numbers of firms issuing profits warnings hence necessitating

further study on the effect of the increased number of warnings on the shareholders wealth. The study hence seeks to answer the research question: What is the effect of profit warnings announcements on the share returns of firms listed at the NSE?

## 1.3 Research Objective

The objective of the study is to find out how the profit warnings announcements affect the shares return of the firms listed at the NSE.

## 1.4 Value of the Study

The study helps investors at the NSE to make an informed decision when investing in firms that have issued profit warnings. Investors can predict how their returns and wealth is affected incase an event of profit warning occurs. Investors will be able to forecast and predict how their future investment returns in form of dividends payments and capital gains will be affected.

The study also assists the listed firms issuing the profit warnings to prepare and predict the market behavior and hence assist in the firms' valuation. Firms are able to clearly evaluate the impact of the information released to the public in form of profit warnings. Financial and market analyst are able to advise prospect investors on the implications of profit warnings. The stock brokers and dealers will be in a position to evaluate the future performance of the stocks.

The regulators main role in capital markets is to ensure market efficiency by ensuring optimal resource allocation. Hence this study is of very high value to enable them formulate policies that ensures the economy's resources are allocated properly. The regulators are in a position to evaluate and understand the impact of profit warning

announcement on the securities market. The empirical evidence obtained will assist

researchers and academicians for further research.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter will discuss the theoretical and empirical literature behind the effect of profit warning announcement on the share returns of the firms listed at the NSE. The section will look at the capital market theories, determinants of share returns and the empirical literature review. The empirical literature framework incorporates scholarly done studies and theories with the aim to ascertain the role profit warnings announcement plays in determining the share returns in the capital markets. The conceptual framework shows the interaction between the independent variable and the dependent variable.

## 2.2 Theoretical Review

The theoretical review will deal with three major capital markets theories. These theories include the efficient market hypothesis theory, agency theory and the random walk theory.

### 2.2.1 Efficient Market Hypothesis Theory

The Efficient Market Hypothesis (EMH) theory proposes that security prices reflect all the available information about the value of a firm (Fama,1970). Stock prices are considered part of the main source of information about a company value. The theory suggests there are three types of efficiency in the EMH theory which includes the weak form, semi-strong form and the strong form. In the weak form EMH the market prices of the shares is based only on the historical information available. The semi strong efficiency states that all public information is well reflected in the market prices. The public information includes the profit warnings announcement, earnings

announcements, dividend announcements, mergers and acquisitions, competitive advantage among others. The Strong EMH implies that all information is available both private and public and hence all investors have the same level of knowledge (Fama, 1970). Given that insiders to a company, such as senior managers, have access to inside information which may make them have an added advantage while making investment decisions, the strong EMH ensures that no investor has more insider information than the other.

In efficient capital markets, the security prices should fully and correctly reflects all the existing relevant information and reacts to new information that becomes newly available (Malkiel, 1992). When the profit warning announcements are made the market reacts to the new information leading to changes in the market prices. This is reflected in the shares returns where there is an expected decrease in the returns. According to Fama (1998), investors will immediately respond to the issue of profit warning announcements by over-reacting or under-reacting to the information. The theory also states that in efficient market the stocks prices are the fair value of that stock. The shareholders reacting to profit warnings announcement are reflected in the share returns. The EMH suggests that it is very hard to predict the future market prices since market will always react to any new information available in the market.

### 2.2.2 Agency Theory

An agency relationship exists when the shareholders appoints the management to perform duties in the firm on their behalf (Ross, 1972). The shareholders delegate the decision making to the management who should make sound decisions that do not harm the shareholders. An agency problem erupts when the appointed management works on its best own interest contrary to the goals of the shareholders. In the

securities market the shareholder expects management to perform effectively by increasing the shareholders wealth. According to Berle and Means (1932) managers are accountable and should report to shareholders of the expected earnings.

The main goal of shareholders is to maximize their wealth while trading in the securities market. Managers should act in the best interest of shareholders so that they maximize the shareholders wealth. However the interest of the shareholders often conflicts with the management's interest leading to the agency problem. Agency costs are incurred to reduce the conflicts between management and shareholders (Jensen and Meckling, 1973). As a way to compensate management they are given incentives in order to minimize the conflicts of interest. Bebchuk (1999) suggests that high ownership concentration may lead to the wrong use of the firm's resources by the dominant owners at the expense of other shareholders and hence ownership and control should be separated. In most cases the owners (shareholders) lack the expertise and skills to run a company and hence appoint a management team who are more qualified to run the company on their behalf.

The investors have appointed the management as principal to act at best of their interest and provide them with all information that is likely to affect the shares returns. Information asymmetry occurs if one party has private information with regards to a firm's performance and value, while other parties only possess general public information that is readily available to everybody (Mohammed, Haitham and Madher, 2015). This could easily bring about agency problems between the management and investors.

### 2.2.3 The Random Walk Theory

The random walk theory proposes that share prices are independent of each other and the past trend cannot be used to predict the future share price (Fama, 1965). The theory proposes that the future share prices is random and cannot be determined earlier. The returns of the different shares are assumed to be uncorrelated. According to Samuelson (1973), regardless of the past performance the stock prices movements cannot be predicted. There are many aggressive investors in the market taking advantage of information available in order to make profit. The market prices quickly reflect the information later leading to the elimination of profiting opportunities in future making the prices to be random.

The share returns are determined by many factors for example the dividends policy, size of the firm and the financial performance of the firm. The theory is hence inconsistent with the operations of the modern stock market where the investors rely more on the information released in the security's market in order to make rational decisions. Investors are keen in maximizing their wealth and aim to make rational decisions to minimize their losses in case of share prices changes (Samuelson, 1973). According to the theory the share prices are random after profit warnings announcements meaning it is hard to predict the shares returns.

### 2.3 Determinants of Share Returns

The profit warnings announcements affects share returns in the securities markets. Other factors that determine the returns on shares include the macro economic variables which are discussed below.

### 2.3.1 Exchange Rate

Currency exchange rate is a major factor affecting stock returns because of the rapid changes in the exchange rates experienced. An exchange rate is the rate at which the foreign currency is expressed in terms of the home currency. Government need to put in place exchange rate policies with the knowledge that the stock markets will be affected. In times of high fluctuations on the exchange rates there are high movements of market return volatility (Barasa, 2014). When a currency depreciates against other currencies it makes investment very expensive. The foreign investors shy away from participating in companies trading in an economy with a weak currency.

The currency exchange rate fluctuates from the time when the investor makes the initial investment in the shares to the period he sells the shares. The investor's main goal is to make a gain from the trading. Given the long-term view of an investor the share returns will be affected due to the fluctuations of the exchange rate. Exchange rate fluctuations affect affects translation, transaction and economic exchange risk exposure leading to operating cash flows and firm value changes (Choi and Prasad, 1995).The stock market is very volatile and what happens in the macro-economic environment is evidently experienced in the share movements. A weak currency can make investor incur huge losses after the translation to the desired currency. A depreciation in the currency leads to a depressed security market.

### 2.3.2 Inflation

Inflation is defined as an increase in the price level of goods and services in an economy which leads to fall in purchasing power or value of money (Kumar, 2015). From an economic view inflation reduces money supply and hence adversely affects the stocks returns. Limpanithiwat and Lalita, (2010) found out that high inflation rate

resulted into higher required rate of return and the stock market volatility increase. There is a negative stock returns and inflation relationship (Fama 1981).

High rates of inflation can have very adverse effects to the securities market. Many market participants will lack the purchasing power to invest in the securities market leading to low market capitalization. The lower the number of investors in the stock markets the lower the demand of the shares leading to low prices. The low prices discourage the shareholder from participated due to fear to incur losses. Brandt and Wang (2003) found that inflation affect the investor's risk averseness and reflect on expected high required return on capital and increased discount rate. High inflation also makes the investment expensive leading to low volumes of shares trading in the market.

### 2.3.3 Interest Rate

Interest rate is one of the important macroeconomic variables that affect the share returns. Interest rate is defined as the cost of capital which is the price paid for the use of someone else money for a certain period of time (Uddin and Alam, 2007). For the borrower, interest rate is the cost of borrowing money and for the lender interest rate is the fee charged for lending money. According to Zhou (1996) interest rates affects the stock returns in the long-run. High interest rates makes borrowing expensive leaving an investor with very low levels of investments. In economics high interest rate will reduce the demand for stocks at the securities markets leading to low demand for shares.

Investors turn to the financial markets to borrow money that they need while investing in the stock market. When the interest rate charged by the financial institutions is high to the investor lowers the shares returns due to the interest expense that the investor

will pay. To shield the investor from this loss, the investor will expect a high rate of return from his investment (Alam, 2009). When the interest deposit rate is high, it increases the investor's money in the bank. The investor will be able to participate more in the capital market leading to high volumes of investment that will increase the returns. Lynge and Zumwalt (1980) did a study and came with conclusion that interest rate sensitivity depended on the term of interest rates given that interest can be short term or long term in nature.

## 2.4 Empirical Literature Review

Komen (2014) found out that stock returns are negatively affected by profit warning announcements since the abnormal returns declined around the event announcement period. An event study methodology on sample of 13 firms that has issued profit warnings between 2010 and 2013 was analyzed. Data was collected from Nairobi Securities Exchange for a period of 106 days (-90, +15) and analyzed using the market model. He observed that the investor had problems making the anticipated profits after the announcement.

Kristoffer (2013) researched on profit warnings information content and its implication on the market rationality. The sample included 144 quantitative and 40 qualitative profit warnings from 2005 to 2012 in the Norwegian stock market. He found out that quantitative information disclosures had a greater market reaction than the qualitative disclosures. Most negative information disclosures had more impact that the positive information released. Using the market model he found out that issuing warnings in times when the investor's confidence was high had a negative market reaction and perception of the firms operating performance.

Lusweti (2014) carried out a research on a similar study on companies listed at NSE over a period of five years from the year 2008 to 2013 of which the sampled companies were twelve. The researcher concluded that profit warning had negative effect on the share prices of the segments studied while segments that issued profit warning earlier than six months were positive. The research model used was the statistical model that incorporated the normal and abnormal returns. The data was evaluated separately on the various segments at the NSE on the ten days event window.

Maina (2014) recommended that regulatory authorities should put in place stringent measures to ensure compliance to insider trading laws by the market participants. Descriptive research design was adopted in the study. For the research purpose, the population constituted of all the listed companies at the NSE that issued profit warnings announcement between the years 2003 to 2013. The sample size focused on 15 listed companies. The findings were that standardized cumulative abnormal returns follow the trend with abrupt decline on the profit warning announcement day and an increase thereafter. Also on the event window of eleven days, the expected returns and the actual returns showed a similar trend. The objective of the study was to evaluate the effects of the profit warnings announcements.

Heesters (2011) who focused on the Dutch market stock returns following a profit warning announcement found out that abnormal returns continue to drift downward following a profit warning announcement due to the under-reaction of the market. The sample consisted of 117 first-time profit warning issued by firms listed at Euronext in Amsterdam between 2001 and 2007. The results showed that profit warnings are

relevant information events that are evidenced by large negative abnormal returns the period after announcements.

Mitau (2014) did a study on market differential reaction to profit warning announcements and dividend decrease. The study found that the average abnormal returns were negative and statistically significant a day prior to the announcement and on the announcement day at the 5% level and at the 10% level. Over the period 2002 to 2012 the research focused on 25 companies and 55events of companies that issued profit warnings and decline in the final dividend respectively at the NSE. The research was carried out using the CAPM market model.

Tumurkhuu and Wang (2010) conducted a research on the EU market to investigate the relationship between the profit warnings on the share returns. The objective was to explain how the value of a firm is affected where researcher used a population of 358 firms and sampled 87 companies for the period 2008-2010. The model used was the event study model incorporating CAPM. The result of the research indicated that profit warning had a negative impact on the stock return in EU area. The qualitative profit warnings were found to have a more negative impact than the quantitative profit warning. The reversal of the cumulative abnormal return back to the previous level after the day of the profit warning indicated the over-reaction.

Wilbushewich (2011) found out that publishing a profit warning caused the negative valuation effect to the announcing firm. He also noted that the valuation effect was different in various countries. The sample used was drawn from companies listed in the Tel-Aviv, Israel's stock exchange during the years 2002-2009. The study objective was about valuation effects around the profit warnings announcements. He

evaluated the data using the market model and concluded that most of market reactions occurred on the actual day of the announcement.

## 2.5 Conceptual Framework

The conceptual framework shows the relationship between the independent and the dependent variable. The relationship between profit warnings announcements and shares returns can be conceptualized as depicted below.

## Conceptual Framework of the Variables

**Event**



Independent Variable                                    Dependent Variable
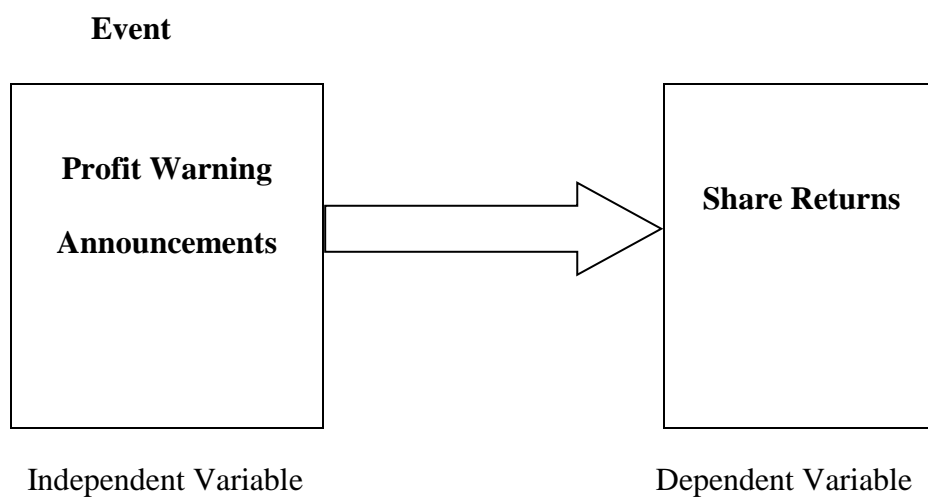
**Figure 1: The relationship between independent and dependent variable**

## 2.6 Summary of Literature Review

The market efficient hypothesis, agency theory and random walk theory have played a key role in the securities exchange market. The theories have critically looked at the investor's expected behavior when news are released to the public and the relationship that exist between management and the shareholders. The macro economic variables have been identified as the major influencers of the shares returns in the securities market. The macro economic factors identified include interest rates, exchange rates and the interest rates. The conceptual framework shows the linkage between profit warning announcement and the shares returns. The empirical studies identified that

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the profit warnings announcements had an effect on the shares returns. The empirical literature studies were done in Kenya and in other countries showed some conflicting relationships. The study will seek to evaluate the effects using the most recent data in the NSE to identify the effect.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

The chapter covers the research design, population, sample design, data collection, research procedure and data analysis. The chapter also discusses the research methodology put in place in order to realize the objectives of the study. The data analysis model is also clearly outlined to show how the effect of profit warnings on the shares return was operationalized.

## 3.2 Research Design

The study used the descriptive research design to determine how the profit warning affects the future returns. Descriptive research design is used when the desired result is to describe persons, organizations, events, settings or phenomena (Creswell, 2003). The study incorporated event study methodology because the study deals with profit warning announcements events. An event study according to Bodie and Marcus (2011) explains a technique of empirical research that assists in assessing the impact of a particular event on the market share prices. Since the study seeks to answer how the share returns are affected event study was a value adding methodology. According to Mackinlay (1997) financial markets can use the market data and information to predict the effect of a particular event.

## 3.3 Population

The target population is the sixty four companies listed at the NSE during the period 2015 to 2016. The population is drawn from all the different segments at the NSE. The different segments at the NSE represent different sectors in the economy making the population a correct representation of the Kenyan economy.

### 3.4 Sample Design

The sample design is based on the companies that issued profits warnings announcements in the 2015 financial year at the NSE. In the 2015 financial year a total of sixteen listed companies that issued profit warnings will be used in the study. The sample was drawn from seven segments in the NSE which includes construction and allied, banking, commercial and services, manufacturing and allied, automobiles and accessories, insurance and investment segments.

### 3.5 Data Collection

The study used secondary data that was obtained from the NSE market reports, CMA reports and the firm's profit warnings announcements. The market prices before and after the announcements are very important in the study to evaluate the percentages of abnormal returns realized.

### 3.6 Validity and Reliability

According to Sekaran (2003) secondary data sources are time and cost effective. Given the nature of the NSE that deals with real time data the data collected was actual and timely for the study. The data used is unlikely to change for a long period of time and can be replicated in other studies.

### 3.7 Data Analysis

The data analysis used is quantitative in nature analyzed using the event study methodology. The event is the profit warning announcement in this case and the event day represents the day of the profit warning announcement and is denoted as t=0. The event window will be 21 days broken as ten days before the event date and ten days after the event date i.e (+10, -10) days. The estimation period for the study is 30 days before the event window to avoid overlapping of data.

Event window
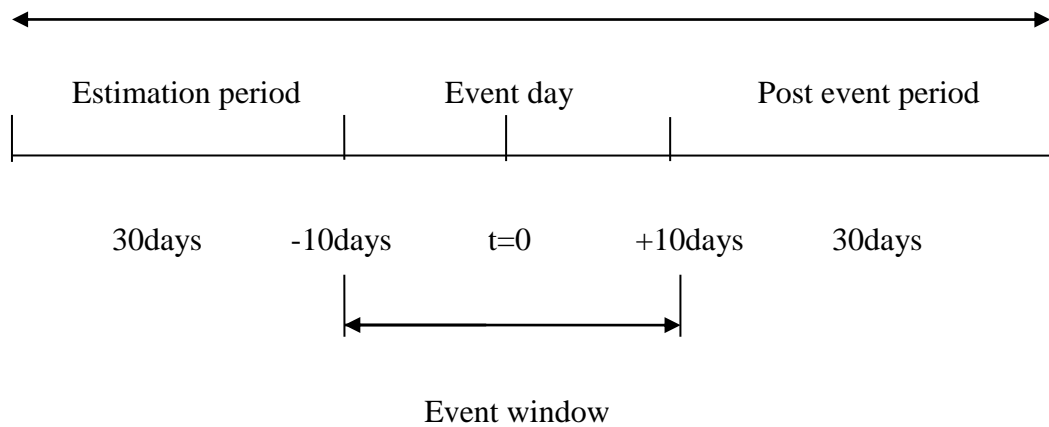
**Figure 2: Event period**

The Abnormal Returns (AR) are used to measure the impact the profits warnings announcements. According to Mackinely (1997) a normal return is defined the expected return without taking into account stock movement caused by an event. The research will use the Capital Asset Pricing Model (CAPM) to determine the expected rate of return on the shares. According to Sharpe (1964) the investor is rewarded for taking the systematic risk through the share returns. The actual share returns (R) are calculated as follows:

$$R = \frac{(MP_t - MP_{t-1})}{MP_{t-1}}$$

Where

MP = Market Price of the shares time at t

Dividends paid are considered irrelevant in this study and hence the returns capture the share price movement only. To calculate the normal/expected returns the following market model will be used;

$$ER_{xt} = \alpha_x + \beta_x Rm_t$$

Where

$ER_{xt}$ is expected returns on stock x at time period t.

$Rm_t$ is the returns in the market at time t.

$\alpha$ is a constant.

$\beta$ (beta) is the security's price volatility relative to the overall market.

The coefficients $\alpha$ and $\beta$ for the market model are calculated using the ordinary least squares (OLS) regression based on historical price data of a stock and the market index during the estimation period. The Expected Return (ER) were estimated using the equation after the values of alpha and Beta are known.

$$ER_t = \alpha + \beta Rm_t$$

The information important for the event is then measured by determining the Abnormal Returns (AR) which is the difference between the actual and normal/expected rate of return. Abnormal returns (AR) were estimated using the following model;

$$AR_{xt} = R_{xt} - ER_{xt}$$

The cumulative abnormal returns (CAR) will be computed as;

$$CAR_{xT} = \sum_{t=1} AR_{xt}$$

Where:

$CAR_{xT}$– cumulative abnormal return on x share obtained in the event window T,

T – The event window

# CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter presents the analysis, findings and discussions on the effect of profit warning announcements on the share returns of companies listed at the NSE. The data of the study was obtained from the shares returns of the sixteen companies listed at the NSE that issued profit warnings from 2015 to 2016. The NSE is divided into twelve different market segments of which the study focused on the seven segments whose companies issued profit warning announcements during the period. The study used data by incorporating the NASI as the market return because it is deemed to be a better representation of the companies listed at the NSE as opposed to using the 20 share index that is mainly composed of the large companies. The study intended to find the relationship between profit warning announcements and the share returns. The independent variable for the study was the profit warning announcement and the dependent variable was share returns.

## 4.2 Response Rate

The study sample was sixteen companies that had issued the profit warnings announcements. There was a 94% response rate. The data analysis focused on fifteen companies since Kurwitu Ventures being a newly listed company their shares had not traded during the event window and hence the abnormal returns could not be observed. To ensure accurate and avoid the distortion of data Kurwitu Ventures was excluded from the analysis.

**Table 4.1: Response Rate**

| Response | Frequency | Percent |
|---|---|---|
| Analyzed | 15 | 94% |
| Not analyzed | 1 | 6% |
| Total | 16 | 100% |

Source: Researcher (2016)

## 4.3 Data Validity

The study incorporated secondary data that was able to meet the objectives of the study. The data was collected from CMA hand books, NSE and from the individual firms which was cross checked for errors to ensure the validity of the data sources. The study found that the data sources provided internal validity whereby it was able to show clearly how the independent variable affected the dependent variable giving no reason to doubt the data collected. The data was fully able to meet the study needs and therefore was considered reliable for the study and can be used for a long period of time.

## 4.4 Descriptive Statistics

The study sought to examine and analyze consolidated data from fifteen listed firms at NSE that issued profit warning announcements to the public in the period 2015 to 2016. Secondary data was obtained from the daily trading share market prices at the NSE. The share market price was obtained from the average of the high and low value in a day. The dependent variable, share returns is derived from the daily percentages changes in the market prices.

$$\text{Share Returns} = \frac{(MP_t - MP_{t-1})}{MP_{t-1}}$$

Daily abnormal returns (ARs) are calculated as the difference between the actual return and expected return of an event firm, where a market model is used to estimate the expected/normal return. The study focused on the abnormal shares returns that were calculated as follows:

Abnormal Returns = Actual stock Returns – Expected stock returns

The estimation period of 30days prior the event window was used to get the regression equation of the expected returns for the individual firms stocks during the event window. The Beta (β) and Alpha (α) for every stock were obtained using the market model during the estimation period. The NASI was used as the market return since it represents all the companies listed at the NSE and is a better representation of the market. The following market model was used:

$$ER_{xt} = \alpha_x + \beta_x Rm_t$$

$ER_{xt}$ is expected returns on stock x at time period t.

$Rm_t$ is the returns in the market at time t (NASI).

$\alpha$ is a constant .

$\beta$ (beta) is the security's price volatility relative to the overall market.

AR's are further cumulated to get the CAR and then matched to different event windows during the pre-event and the post event period. The table below shows the composition of the firms, number and percentage of the sampled firms per segment.

**Table 4.2: Sampled Firms**

| SEGMENT | No. | Percentage |
|---|---|---|
| Construction and Allied | 1 | 6.25% |
| Banking | 2 | 12.50% |
| Commercial and Services | 5 | 31.25% |

| Manufacturing and allied | 2 | 12.50% |
|---|---|---|
| Automobiles and accessories | 1 | 6.25% |
| Insurance | 3 | 18.75% |
| Investment | 2 | 12.50% |
| **TOTAL** | **16** | 100% |

Source: Researcher (2016)

The table below shows the mean, standard deviation, co-efficient of variation, skewnes and kurtosis of the abnormal returns during the event window.

**Table 4.3: Abnormal Returns Descriptive Statistics – Event Window period**

| DAY (t) | ABNORMAL RETURNS | MEAN | STD DEV | COEFFICIENT OF VARIATION | SKEWNESS | KURTOSIS |
|---|---|---|---|---|---|---|
| -10 | 19.98% | 1.33% | 3.67% | 2.76 | 0.64 | 0.97 |
| -9 | 6.67% | 0.44% | 2.37% | 5.34 | 0.35 | 1.32 |
| -8 | -4.88% | -0.33% | 2.67% | -8.20 | 0.13 | 0.22 |
| -7 | -7.06% | -0.47% | 3.63% | -7.71 | 0.06 | 1.58 |
| -6 | -21.57% | -1.44% | 4.71% | -3.27 | -0.66 | 0.42 |
| -5 | -1.36% | -0.09% | 3.27% | -36.01 | -1.71 | 4.31 |
| -4 | -3.89% | -0.26% | 2.11% | -8.13 | -0.40 | 1.17 |
| -3 | 11.53% | 0.77% | 3.75% | 4.88 | 0.60 | 0.83 |
| -2 | 7.48% | 0.50% | 3.87% | 7.77 | 1.87 | 6.23 |
| -1 | 18.93% | 1.26% | 5.18% | 4.11 | 2.34 | 7.14 |
| 0 | 10.44% | 0.70% | 6.43% | 9.24 | 1.39 | 3.06 |
| 1 | -18.14% | -1.21% | 4.80% | -3.96 | 0.84 | 1.93 |
| 2 | -16.29% | -1.09% | 6.72% | -6.19 | -0.23 | 3.21 |
| 3 | 3.83% | 0.26% | 5.50% | 21.54 | 0.76 | 1.90 |
| 4 | 6.71% | 0.45% | 6.29% | 14.07 | 0.18 | 0.16 |
| 5 | -7.17% | -0.48% | 5.41% | -11.33 | 1.65 | 5.98 |
| 6 | 14.92% | 0.99% | 5.77% | 5.79 | 0.79 | -0.34 |
| 7 | 10.11% | 0.67% | 4.59% | 6.82 | 0.18 | 0.86 |
| 8 | 20.48% | 1.37% | 2.78% | 2.04 | 0.82 | -0.05 |
| 9 | -7.45% | -0.50% | 4.04% | -8.14 | 2.27 | 6.67 |
| 10 | -40.98% | -2.73% | 4.11% | -1.50 | -0.41 | -0.27 |

Source: Researcher (2016)

From the table above one can observe that there are negative abnormal returns after the profit warnings announcements. Looking at day one (-18.14%) and day two (-16.29%) after the announcements there is a decrease in level of abnormal returns compared with the returns of 18.93% at t=-1 before the announcement meaning that there is a negative market reaction after the information release. The mean also shows a decreased level of abnormal returns after the event compared with 1.26% before the event day at t=-1. Closer look at the mean reveals a mean of 0.70% during the event day whereas there is a decline in the central tendency after the event in day one and day two, -1.21% and -1.09% respectively confirming that indeed profit warning announcements have a very negative effect on the shares returns.

There is a very high deviation of stock returns during the event day and after the event as depicted by the standard deviation of 6.43% at t=0, 4.80% at t=1 and 6.72% at t=2. The Co-efficient of variation during the event day is high at 9.24 and then drops to -3.96 at t=1 and -6.19 at t=2 describing the spread that shows the amount of variability relative to the mean. The measure of asymmetry shows that stock returns of the firms listed at the NSE during the event window are mostly right skewed to the their means because they have a skewness statistic more than zero except on day t -6, t =-5, t=-4, t= 2, t= 10 when the returns are skewed to the left. The measure of peakness shows that stock returns have steep distributions more than a normal distribution during the event day because the returns are more than 3 i.e 3.06 at t=0.

Table 4.4 shows that profit warning announcements leads to a large negative market reaction after the announcement. On the day of the announcement (-10,0) , the CAR is 57.47%, and at (-10,1) the CAR falls to 29.02% then a drastic fall to 2.41% at (-10,2) meaning the announcement have a negative effect on the shares returns.

**Table 4.4: Cumulative abnormal returns Descriptive Statistics –event window**

| DAY (t) | CAR | MEAN | STD DEV | COEFFICIENT OF VARIATION | SKEWNESS | KURTOSIS |
|---|---|---|---|---|---|---|
| -10 | 27.02% | 1.80% | 3.73% | 2.07 | 0.64 | 0.69 |
| -9 | 42.27% | 2.82% | 4.57% | 1.62 | 0.38 | -0.93 |
| -8 | 46.90% | 3.13% | 5.58% | 1.78 | 0.48 | -0.82 |
| -7 | 55.91% | 3.73% | 7.39% | 1.98 | 1.19 | 1.25 |
| -6 | 48.31% | 3.22% | 9.00% | 2.79 | 1.35 | 1.53 |
| -5 | 51.10% | 3.41% | 9.66% | 2.83 | 1.86 | 3.94 |
| -4 | 43.59% | 2.91% | 11.06% | 3.81 | 2.00 | 4.36 |
| -3 | 48.71% | 3.25% | 12.84% | 3.96 | 2.26 | 5.62 |
| -2 | 44.84% | 2.99% | 14.08% | 4.71 | 2.27 | 5.87 |
| -1 | 51.72% | 3.45% | 16.03% | 4.65 | 2.37 | 6.44 |
| 0 | 57.47% | 3.83% | 18.17% | 4.74 | 2.59 | 6.88 |
| 1 | 29.02% | 1.93% | 19.81% | 10.24 | 2.43 | 5.79 |
| 2 | 2.41% | 0.16% | 17.31% | 107.74 | 1.88 | 2.97 |
| 3 | -3.31% | -0.22% | 19.20% | -86.87 | 1.98 | 3.23 |
| 4 | -8.96% | -0.60% | 18.75% | -31.38 | 1.51 | 2.03 |
| 5 | -24.99% | -1.67% | 18.47% | -11.09 | 1.27 | 2.19 |
| 6 | -15.76% | -1.05% | 18.66% | -17.76 | 1.14 | 1.59 |
| 7 | -3.48% | -0.23% | 19.57% | -84.36 | 1.53 | 3.55 |
| 8 | 25.59% | 1.71% | 20.14% | 11.81 | 1.86 | 4.79 |
| 9 | 33.74% | 2.25% | 21.54% | 9.58 | 1.34 | 2.32 |
| 10 | -7.24% | -0.48% | 21.39% | -44.32 | 1.62 | 3.42 |

Source: Researcher (2016)

During the entire event period (-10,10) the CAR amounts to -7.24% depicting there is a negative market return leading to low stock returns during the event window.
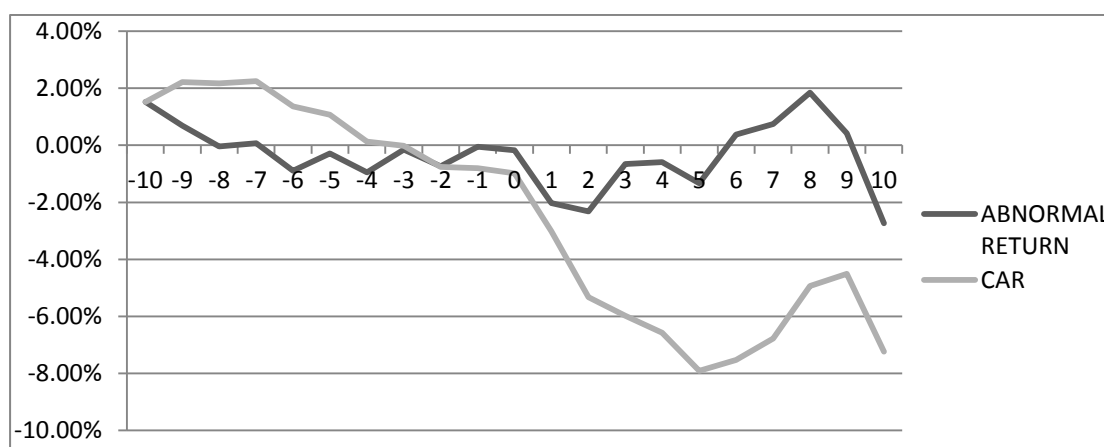


**Figure 3: CAR and Abnormal Return Trend**

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Figure 3 graphically displays how the market reaction evolves as shown by the abnormal returns and CAR curves during the event window and the negative impact as shown by the downward trend. A closer look at the results shows that profit warnings seem to surprise the majority of investors with insignificant ARs and CARs prior to the announcement.
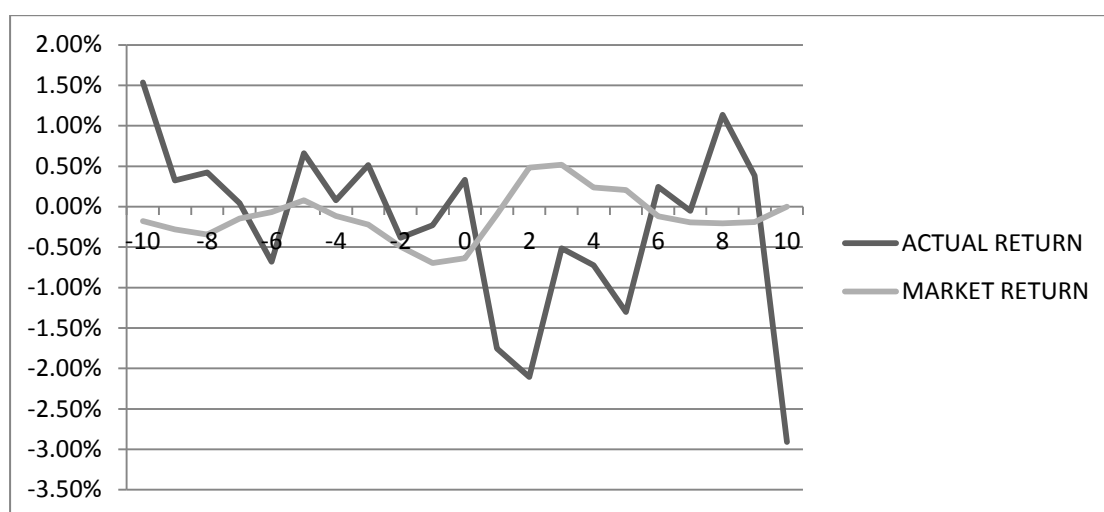


**Figure 4: Actual Returns and Market Return Trend**

Figure 4 above shows the market return trend and the actual return trend showing the low and negative returns realized after the announcement compared to the overall market return during the event window.

**4.5 Correlation Analysis**

The following table shows the correlation between the market return, actual returns, expected return and the abnormal during the event window.

**Table 4.5 : Returns Correlation**

|  | Expected Return | Actual Return | Market Return | Abnormal Return |
|---|---|---|---|---|
| Expected Return | 1 | | | |
| Actual Return | -0.145226411 | 1 | | |
| Market Return | 0.107541173 | -0.25935 | 1 | |
| Abnormal Return | -0.410409793 | 0.565156 | -0.4744 | 1 |

Source: Researcher (2016)

There is a strong positive correlation of 0.57 between the actual returns realized and the abnormal returns during the event window amongst the fifteen firms. There is a negative relationship of -0.47 between the market return and the abnormal returns realized during the event period meaning a firm's announcements have a negative effect. The correlation between the expected return and the actual return is -0.15 while there is a positive relationship between the expected return and the market return of 0.11. There is a negative relationship between the abnormal returns and the expected return of -0.41 clearly depicting that profit warning announcement are new information that carry negative information.

## 4.6 Regression Analysis and Hypothesis Testing

The regression method used during the study was the ordinary least square method (OLS) which is best linear unbiased estimator of the coefficients when using the market model. This method assumes linearity between the dependent variable and the independent variable and thus was used to determine the line of best fit for the model through minimizing the sum of squares of the distances from the points to the line of best fit. This model ensures consistency, low level of biasness and efficiency during estimation.

**Table 4.6: ANOVA**

SUMMARY OUTPUT

| Regression Statistics | |
| --- | --- |
| Multiple R | 0.259351 |
| R Square | 0.067263 |
| Adjusted R Square | -0.004486 |
| Standard Error | 0.009080 |
| Observations | 15 |

ANOVA

| | df | SS | MS | F | Significance F |
| --- | --- | --- | --- | --- | --- |
| Regression | 1 | 7.73E-05 | 7.7E-05 | 0.937472 | 0.350597979 |
| Residual | 13 | 0.001072 | 8.2E-05 | | |
| Total | 14 | 0.001149 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Intercept | -0.004239 | 0.003038 | -1.395 | 0.1863 | -0.011 | 0.0023 | -0.0108 | 0.002324 |
| X Variable 1 | -1.595222 | 1.647563 | -0.968 | 0.3506 | -5.155 | 1.9641 | -5.1546 | 1.964121 |

Source: Researcher (2016)

The table above shows the regression analysis for all firms during the event period. The regression equation during the event window is presented below.

$$R_{xt} = \alpha_x + \beta_x Rm_t$$

R = -0.004239 -1.59522x

From the results shown in table 4.4, the model shows a goodness of fit as indicated by the coefficient of determination $R^2$ with value of 0.0672. This implies that independent variable (Market Return) explains 6.72% of the variations as a result of

the factors affecting the market performance. 93.28% of variations are brought about by other factors that exist in the securities market.

The results indicate that the model had an F-ratio of 0.94 which was significant at the 0.04933 level of significance. This implies that the overall regression model is statistically significant and is useful for prediction purposes at 5% significance level. From the analysis the independent variables (market return) used are statistically significant in predicting shares returns during the event window .A test of significance was conducted using the t-test for both the AR and CAR from year 2015 to 2016.From the test of significance, the null hypothesis that profit warning announcement does not have an effect on the stock returns of firms listed at the NSE is rejected.

## 4.7 Discussion of Research Findings

The objective of the study was to establish the effects of profit warning announcements on the shares returns for firms listed at the Nairobi Securities Exchange. The cumulative abnormal returns were then calculated by summing up the average abnormal returns during the event window (-10,+10). The output of AR and the CAR were later graphed to show the trend during the event window period for the year 2015 to 2016 profit warnings announcements. The test of significance found out that indeed profit warning announcements have an effect on the shares returns of a firm. Further it was noted that companies that disclosed more information and remained optimistic in their profit warning announcements had minimal abnormal returns.

Research findings shows that on average, the abnormal returns were positive before the announcement date and negative after the announcement date. There is a

significant change in the abnormal returns and CAR after the profit warning announcements. The CAR curve slopes downwards significantly after the announcement date. This shows that shares returns for the selected firms reacts negatively to profit warning announcements. This shows that profit warning announcements are statistically significant and affects the shares returns negatively. The market model shows that the market return can only predict the stock returns by 6.72% which clearly explains that the return on market alone cannot predict the impact of profit warning announcements.

The findings are backed up by Wamweya (2012) who sought to test whether post earnings announcement drift exist at NSE. The study aimed to find out whether negative earnings surprise was followed by negative abnormal stock returns for an event window of 60 days. Thirty eight stocks were sampled and analyzed between the year 2009 to 2011. The results showed that firms that report bad news about their earnings affects the stock returns in a negative way and the trend moves downwards.

Abour (2014) did a study on the effect of profit warnings announcements on the stock returns at the NSE. The study focused on 10 companies that issued profit warnings during the period 2007 – 2012. Study indicates that profit warning has a negative effect on the stock returns and the impact is negative and significant for the period of pre-warning and post-warning and on the day of actual announcement. Ball and Brown (1968), concluded that releasing to the public unknown accounting information relating to profits have a clear valuation effect as depicted by the shares returns of the firm making the announcement. These fundamental findings confirmed that there are negative valuation effects around announcement of profit warning.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents a summary of findings to the study and also draws conclusions based on the findings of the research. The chapter subsequently, makes recommendations arising from the conclusions of the study and makes suggestions for further research in connection with areas aligned to this study. The study sought to establish the effect of profit warnings announcements on the shares returns of companies listed at the NSE.

## 5.2 Summary of Findings

The study adopted the CAPM model to calculate the abnormal returns and incorporated the market return computed using the daily NASI – Share index. Most of the shares evaluated showed negative abnormal returns during the profit warning announcements dates as reflected by the negative abnormal returns realized. There are high abnormal returns realized few days before the announcement i.e $t_{-1}$ = 18.93% while after the announcement the shares returns falls drastically as observed at $t_1$ = -18.14%.

Descriptive statistics were used to analyze the abnormal returns and the Cumulative Abnormal Returns. Abnormal returns had a mean of -2.73% and a standard deviation of 4.11%, while the CAR has a mean of -0.48% and a standard deviation of 21.39. Correlation of study variables was done and revealed that indeed there is a relationship between the different types of returns. The negative correlation between the expected returns and the abnormal returns of -0.69 is a clear indication of the negative reaction after profit warning announcements.

The market model shows a goodness of fit as indicated by the coefficient of determination $R^2$ with value of 0.0672. This implies that independent variables i.e the

market return only explains 6.72% of the variations on shares return as a result of the profit warning announcements confirming the random walk theory prepositions in the capital markets. 93.38% of variations in the share returns are brought about by the surprise of the warnings and other factors in the stock market

According to the regression equation established, the shares return during the event window had a constant of -0.004239 that could not be explained by the variation of the market rate. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in market return will lead to a 1.595 decrease in the stock returns. The results implies that after the profit warning announcements are made the market reacts negatively leading to declined share returns as shown by the CAR.

## 5.3 Conclusion

The objective of this research was to find out how the shares returns behave to a profit warning announcement at the NSE, specifically whether there is evidence of post-announcement drift. The research found that the market reaction is negative after the event whereas there were positive abnormal returns days before the announcement. The sample consists of sixteen profit warning issued by firms listed at NSE between 2015 and 2016.

The findings were consistent with the existing literature which results show that profit warnings are highly relevant information that led to large negative abnormal returns after the announcement. In a twenty one-day event window the average CAR is -7.4% showing that there are negative returns associated with profit warning announcements. The results clearly manifest that abnormal returns continue to drift downward following a profit warning announcement, which is attributed to negative market reaction when the

investors react to the negative information. In consistent with the efficient market hypothesis all the share prices reflect all the relevant information.

The result of research study indicates that profit warning has a significant effect on the share returns for the period of pre-warning and post-warning and on the day of actual announcement. The most significant impact is observed during the event period from some days before to some days after the profit warning. It may indicate the information leakage prior to the profit warning and the market observes the information quickly thus reacts significantly during these days. The huge positive abnormal returns realized before the event day indicate presence of insider trading. The study concludes that consistent with the existing literature the results show that profit warnings are highly relevant information events that are followed by large negative abnormal returns in the short term.

## 5.4 Recommendations

Profit warning announcements are new information, unplanned, and unexpected corporate announcement that should inform investors before the actual earnings announcement. They serve the purpose of informing the market of the expected earnings deviations and hence reduce the negative impact of the negative earnings surprise. The release of information through profit warnings announcements reduce the information asymmetry and reduce insider dealings by improving the transparency in the securities market. It is commendable that firms put clear and honest details of what has prompted the announcements in order to avoid panic and low trading in the stock market.

It is highly important that the firms that are listed or considering listing at the NSE, to evaluate the significant impact on the shares returns because the investors react immediately to the information released. Moreover, the timing and content of the

profit warning announcement can have different impact thus firms listed should be keen when making such announcements. Profit warning announcement should be considered in strategic management and corporate financial strategies because of the effect they have on the firm's value and to the market perception.

From the study it is highly recommendable that firms should indicate the reasons for the profit warnings. This is due to the fact that some factors could be due to the economic, political or social condition that is temporal or uncontrollable. This will help boost the market confidence and avoid drastic downfall of returns. Firms should also be keen to give the measures put in place to avoid subsequent profit warning announcements since this can reduce the negative market reaction. The regulatory bodies should put in place stringent measures that avoid insider trading days before the announcements to prevent the huge abnormal return realized before the event. They should also put stringent measures and clear guidelines on the content of the profit warning announcements. This will make sure there is full disclosure of all relevant information in the profit warning announcements.

## 5.5 Limitations of the Study

Some companies issued more than one profit warning announcements during the period of the study. Atlas Development and Support Services changed its accounting period making it issue two profit warnings during the period of study because they had to readjust their earnings to match the accounting period as required by the accounting standards. This is likely to have some confounding effects on the results of the study. This led to choosing the recent event to avoid using the same company twice during the study.

Some firm's shares did not trade during the event window period hence making data analysis difficult. Since stocks were dormant it was difficult to capture the share price movements during the event window. This led to one of the sampled firms been excluded during data analysis to avoid diluting the effect of the active stocks because of their nil returns. It was difficult to isolate on the abnormal returns realized since there could be other empirical factors that were affecting the stock which could have had confounding effects on the results.

The sample size used during the research was fifteen companies listed at the NSE. The required sample size while doing a regression should be equal to or more than thirty in order to increase the accuracy and reliability of data. This had a limitation while doing the regression analysis through the ANOVA tables.

## 5.6 Suggestions for Further Research

The study recommends that further research to be done to evaluate what factors are behind the issue of profit warnings and how the various individual factors affect the shares returns at the NSE. Interesting extensions for future research would also entail the action and measures taken by firms issuing the warnings to reduce profit warning announcements in subsequent years after the first time profit warning announcement. While undertaking the study I was keen to note that some firms had issued more than one profit warning and hence a comparative study should be carried out between first time profit warnings announcements and subsequent profit warnings announcements.

Further study need also to focus on the effect of profit warning announcements on the future financial performance of the firms whereby the researcher should evaluate do profit warnings lead to improved performance in the future. Research also should extend on how profit warnings affect the value of the firm both in the short term and

in the long-run. The evaluation on the content information of the profit warning announcements and the level of the actual profit reduction on how they affect the share returns would also be a key. A comparative study should be done on the firms that issue profit warnings during profit warning announcements and the actual earnings announcements on the share returns behavior.

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# APPENDICES

**Appendix 1: List of firms**

| NAME OF THE FIRM | SEGMENT | DATE |
|---|---|---|
| 1.  East African Cables Ltd | construction and allied | 25th August 2015 |
| 2.  Standard Chartered Bank | Banking | 25th November 2015 |
| 3.  National Bank of Kenya | Banking | 30th March 2016 |
| 4.  Uchumi Supermarket Ltd | Commercial and Services | 26th August 2015 |
| 5.  Express Ltd | Commercial and Services | 26th August 2015 |
| 6.  Standard Group Ltd | Commercial and Services | 27th August 2015 |
| 7.  Atlas Development and Support Services | Commercial and Services | 22nd April 2016 |
| 8.  TPS East Africa ( Serena) | Commercial and Services | 21st December 2015 |
| 9.  Mumias Sugar | Manufacturing and allied | 14th August 2015 |
| 10. Boc Kenya Limited | Manufacturing and allied | 9th December 2015 |
| 11. Car and General (K) | Automobiles and accessories | 6th August 2015 |
| 12. Liberty Holdings | Insurance | 29th January 2016 |
| 13. Pan African Insurance | Insurance | 29th December 2015 |
| 14. BRITAM Holdings Ltd | Insurance | 23rd December 2015 |
| 15. Home Africa | Investment | 30th December 2015 |
| 16. Kurwitu Ventures | Investment | 23rd March 2016 |

**Appendix 2: Returns during the event window**

| COMPANY | EXPECTED RETURNS | ACTUAL RETURNS | MARKET RETURNS | ABNORMAL RETURNS |
|---|---|---|---|---|
| East African Cables Ltd | -0.09% | -1.27% | -0.25% | -1.18% |
| Standard Chartered Bank | -0.02% | -0.17% | 0.10% | -4.98% |
| National Bank of Kenya | -0.62% | -1.88% | -0.01% | -1.26% |
| Uchumi Supermarket | -0.99% | 1.78% | -0.29% | 2.78% |
| Express Ltd | -0.14% | -0.51% | -0.29% | -0.37% |
| Standard Group Ltd | 0.05% | -0.14% | -0.26% | -0.19% |
| Atlas Development and Support Services | 0.21% | -0.39% | -0.06% | -0.60% |
| TPS East Africa ( Serena) | -0.04% | -0.44% | 0.12% | -0.40% |
| Mumias Sugar | -0.31% | -0.10% | -0.34% | 0.22% |
| Boc Kenya Limited | -0.48% | 0.03% | -0.16% | 0.51% |
| Car and General (K) | 0.46% | -0.37% | -0.16% | -0.84% |
| Liberty Holdings | -0.37% | -0.86% | -0.04% | -0.31% |
| Pan African Insurance | -0.21% | -0.35% | -0.07% | -0.15% |
| BRITAM Holdings Ltd | -0.53% | -0.37% | 0.04% | 0.16% |
| Home Africa | 0.07% | 1.49% | -0.10% | 1.42% |

## Appendix 3: Firms abnormal returns

| DAY | E.A Cables | SCB | NBK | Uchumi | Express Kenya | Standard Group | Atlas | TPS | Mumias | BOC Kenya | Car and General | Liberty Holdings | Pan African | Britam | Home Afrika |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -10 | -1.62% | 0.98% | 3.43% | 2.47% | 9.99% | 0.06% | 2.66% | -0.01% | 4.55% | 0.53% | -4.60% | -2.27% | -3.05% | 1.56% | 5.29% |
| -9 | -0.57% | 0.66% | 1.00% | 5.68% | -0.20% | 0.06% | 1.02% | -0.95% | -2.99% | 0.48% | -0.01% | 2.00% | -4.05% | 0.55% | 3.98% |
| -8 | -0.19% | 0.37% | 0.14% | 1.22% | -0.22% | 1.19% | -3.75% | -0.94% | -5.19% | 4.53% | -0.51% | -2.26% | -3.39% | -0.20% | 4.32% |
| -7 | -1.53% | 2.66% | -0.06% | 0.89% | -7.61% | -0.04% | -1.76% | -0.80% | -6.16% | 0.45% | -0.64% | 2.27% | -3.35% | 0.88% | 7.74% |
| -6 | -2.31% | -2.11% | 0.65% | 5.98% | -5.23% | 0.61% | 0.05% | -1.91% | -11.56% | -9.05% | -0.11% | 3.12% | -4.51% | 0.52% | 4.28% |
| -5 | 0.44% | 1.33% | 1.51% | 1.72% | 0.06% | -0.02% | 1.88% | -0.87% | -9.32% | 0.44% | 0.11% | 2.07% | -4.65% | -0.98% | 4.92% |
| -4 | 0.45% | -0.36% | -0.67% | 1.71% | -3.34% | -1.89% | -0.06% | -1.88% | 0.68% | 0.51% | 0.85% | 0.33% | -4.83% | 0.60% | 3.99% |
| -3 | -0.59% | 0.59% | -0.46% | 1.75% | 3.52% | 2.23% | -4.95% | 0.71% | 8.81% | 0.47% | 0.18% | -1.41% | -5.19% | -1.28% | 7.13% |
| -2 | -0.24% | -0.23% | -2.37% | 1.10% | -1.11% | 0.36% | 0.04% | 1.31% | 12.18% | 0.46% | -0.14% | -2.71% | -5.77% | 0.89% | 3.69% |
| -1 | -1.15% | 0.58% | 0.37% | 1.89% | -1.30% | 0.35% | 0.09% | -0.94% | 17.38% | 0.46% | -0.35% | 0.84% | -6.03% | -0.48% | 7.24% |
| 0 | 1.33% | 0.73% | -8.31% | 5.88% | -3.50% | -4.24% | 3.28% | -0.89% | 18.17% | 0.46% | -0.95% | -3.57% | -6.13% | 0.71% | 7.48% |
| 1 | -1.49% | -6.43% | -1.31% | 4.67% | -0.58% | -0.45% | -2.42% | 0.37% | 10.79% | 0.48% | -9.08% | -5.40% | -6.11% | -1.99% | 0.82% |
| 2 | -1.61% | 6.13% | -8.28% | 1.94% | 1.62% | -0.44% | -2.10% | -1.24% | 14.08% | 0.46% | -2.46% | -0.69% | -3.77% | -2.51% | -17.41% |
| 3 | -5.54% | -4.03% | 4.15% | 4.39% | 1.57% | -9.34% | -3.83% | 1.21% | 14.01% | 0.47% | -1.24% | -0.17% | -3.69% | 1.22% | 4.66% |
| 4 | -8.93% | -0.80% | -9.13% | 0.78% | 0.48% | 8.68% | 0.52% | 2.93% | 13.48% | 5.73% | 3.26% | 0.07% | -3.92% | 1.65% | -8.08% |
| 5 | -5.86% | 0.65% | -2.26% | 2.23% | 0.05% | -0.41% | 0.00% | -4.09% | 15.64% | 0.43% | 0.08% | 0.17% | -3.28% | -0.72% | -9.78% |
| 6 | 9.08% | -0.39% | -6.94% | 0.75% | -4.35% | 0.02% | -0.39% | -0.04% | 12.07% | 10.50% | 0.12% | -2.93% | -3.21% | 5.55% | -4.92% |
| 7 | -1.30% | -2.50% | 2.49% | 9.22% | 6.09% | -0.23% | -2.28% | -0.33% | 8.26% | 0.46% | -0.57% | 0.77% | -2.57% | 1.64% | -9.04% |
| 8 | 2.62% | 0.36% | 6.38% | 6.45% | 5.47% | -0.16% | -0.21% | 0.16% | 0.89% | -0.44% | -0.37% | 2.30% | -3.06% | -0.67% | 0.76% |
| 9 | -2.84% | 0.40% | -3.27% | -1.81% | 0.58% | -0.08% | -1.96% | 3.10% | -3.45% | 0.50% | -0.85% | -3.35% | -5.14% | -1.29% | 12.02% |
| 10 | -2.89% | -1.79% | -3.44% | -0.64% | -9.73% | -0.18% | 1.66% | -3.24% | -10.00% | -7.72% | -0.27% | 4.38% | -5.60% | -2.32% | 0.80% |

## Appendix 4: Firms cumulative abnormal returns

| | E.A Cables | SCB | NBK | Uchumi | Express Kenya | Standard Group | Atlas | TPS | Mumias | BOC Kenya | Car and General | Liberty Holdings | Pan African | Britam | Home Afrika |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -10 | -1.62% | 0.98% | 3.43% | 2.47% | 9.99% | 0.06% | 2.66% | -0.01% | 7.54% | 0.53% | -4.60% | -2.27% | 1.00% | 1.56% | 5.29% |
| -9 | -2.19% | 1.63% | 4.43% | 8.15% | 9.79% | 0.12% | 3.69% | -0.96% | 9.74% | 1.02% | -4.61% | -0.27% | 0.34% | 2.11% | 9.28% |
| -8 | -2.39% | 2.01% | 4.57% | 9.37% | 9.57% | 1.31% | -0.06% | -1.90% | 10.71% | 5.55% | -5.12% | -2.53% | 0.30% | 1.91% | 13.60% |
| -7 | -3.92% | 4.67% | 4.51% | 10.26% | 1.96% | 1.27% | -1.82% | -2.70% | 16.11% | 6.00% | -5.76% | -0.26% | 1.47% | 2.79% | 21.34% |
| -6 | -6.23% | 2.56% | 5.17% | 16.25% | -3.27% | 1.88% | -1.77% | -4.61% | 13.87% | -3.05% | -5.87% | 2.86% | 1.61% | 3.31% | 25.61% |
| -5 | -5.78% | 3.88% | 6.67% | 17.97% | -3.21% | 1.86% | 0.11% | -5.48% | 3.87% | -2.60% | -5.76% | 4.93% | 1.78% | 2.33% | 30.53% |
| -4 | -5.33% | 3.52% | 6.01% | 19.68% | -6.54% | -0.03% | 0.05% | -7.36% | -4.26% | -2.10% | -4.91% | 5.26% | 2.14% | 2.94% | 34.52% |
| -3 | -5.91% | 4.12% | 5.55% | 21.44% | -3.02% | 2.20% | -4.90% | -6.65% | -7.63% | -1.63% | -4.74% | 3.86% | 2.72% | 1.66% | 41.65% |
| -2 | -6.15% | 3.89% | 3.18% | 22.54% | -4.13% | 2.57% | -4.87% | -5.34% | -12.83% | -1.17% | -4.88% | 1.15% | 2.98% | 2.55% | 45.34% |
| -1 | -7.30% | 4.47% | 3.55% | 24.42% | -5.42% | 2.92% | -4.78% | -6.29% | -13.62% | -0.71% | -5.23% | 1.98% | 3.08% | 2.07% | 52.57% |
| 0 | -5.97% | 5.20% | -4.76% | 30.30% | -8.92% | -1.32% | -1.50% | -7.18% | -6.24% | -0.25% | -6.18% | -1.59% | 3.06% | 2.78% | 60.05% |
| 1 | -7.46% | -1.23% | -6.07% | 34.97% | -9.50% | -1.78% | -3.92% | -6.81% | -9.53% | 0.23% | -15.26% | -6.99% | 0.73% | 0.78% | 60.87% |
| 2 | -9.06% | 4.90% | -14.35% | 36.91% | -7.89% | -2.22% | -6.02% | -8.06% | -9.46% | 0.68% | -17.72% | -7.68% | 0.65% | -1.73% | 43.45% |
| 3 | -14.60% | 0.87% | -10.20% | 41.31% | -6.32% | -11.56% | -9.85% | -6.85% | -8.93% | 1.15% | -18.96% | -7.85% | 0.88% | -0.51% | 48.11% |
| 4 | -23.53% | 0.07% | -19.34% | 42.09% | -5.84% | -2.88% | -9.33% | -3.93% | -11.09% | 6.88% | -15.70% | -7.78% | 0.24% | 1.14% | 40.03% |
| 5 | -29.39% | 0.72% | -21.60% | 44.32% | -5.79% | -3.29% | -9.33% | -8.02% | -7.52% | 7.31% | -15.61% | -7.62% | 0.16% | 0.42% | 30.25% |
| 6 | -20.31% | 0.33% | -28.54% | 45.07% | -10.13% | -3.26% | -9.71% | -8.05% | -3.71% | 17.81% | -15.50% | -10.55% | -0.48% | 5.97% | 25.33% |
| 7 | -21.61% | -2.17% | -26.06% | 54.29% | -4.05% | -3.50% | -11.99% | -8.39% | 3.66% | 18.27% | -16.07% | -9.78% | 0.01% | 7.61% | 16.29% |
| 8 | -18.99% | -1.81% | -19.68% | 60.74% | 1.42% | -3.66% | -12.20% | -8.23% | 8.00% | 17.83% | -16.43% | -7.48% | 2.10% | 6.94% | 17.04% |
| 9 | -21.83% | -1.42% | -22.95% | 58.93% | 2.00% | -3.73% | -14.17% | -5.13% | 14.55% | 18.33% | -17.28% | -10.83% | 2.55% | 5.65% | 29.06% |
| 10 | -24.72% | -3.21% | -26.39% | 58.29% | -7.73% | -3.92% | -12.50% | -8.37% | 4.55% | 10.62% | -17.55% | -6.45% | -3.05% | 3.33% | 29.86% |