# THE EFFECTS OF EMPLOYEE LAYOFFS ANNOUNCEMENTS ON STOCK RETURNS OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

**BY**

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## DECLARATION

**I declare that this project is my original work and has never been submitted for a degree in any other university or college for examination/academic purposes.**

**Signature: …… Date: ……**

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**D63/79192/2015**

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

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## DEDICATION

I dedicate this research to my family – mum Naomi Syombua, Daddy – George Kyalo, my beloved brothers; my Uncle Solomon Nyamai from whom I draw lots of inspiration.

To my future wife and children – I hope the hard work I put in life will bring forth good fruit for thee.

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| | |
|---|---|
| ANOVA | Analysis of Variance |
| AR | Abnormal Return |
| CAPM | Capital Asset Pricing Model |
| CAR | Cumulative Abnormal Return |
| EMH | Efficient Market Hypothesis |
| HPR | Holding period return |
| KIPPRA | Kenya Institute for Public Policy Research and Analysis |
| NASI | NSE All Share Index |
| NSE | Nairobi Securities Exchange |
| OLS | Ordinary Least Squares |
| ROE | Return on equity |
| WDS | Worrell, Davidson and Sharma |

## ABSTRACT

This paper deliberates on the effects of announcements of employee layoffs on short term stock price of firms listed at the NSE. These market responses to announcements of layoffs are as a result of investors' perception about the information content of those layoffs. Those reactions are examined in this study using a sample of companies that had made employee layoff announcements in the NSE between the year 2013 and 2016. There has been no consensus on how capital markets generally respond to effects of corporate layoffs on stock returns and thus the objective of this study was to investigate effects of employee layoff announcements on short term share prices of firms listed at the NSE. Data of six publicly released layoff announcements of the companies quoted at the NSE were collected for the three-year period from year 2013 to year 2016. To study the share price reaction to layoffs, an event study technique and Microsoft excel as a statistical tool, were used to analyse data and significance level testing of the findings using a two tailed t statistic at 95% significance level. Averagely investors perceive layoffs as positive news for the company making those announcements. Pre-Employee layoffs announcement response to is affirmative, supportive of the U.S. and U.K. markets' results. However, as opposed to many prior studies, the response is apprehended fully a day before the actual news officially reaches the NSE. This study revealed that stock prices and returns changed insignificantly after the day of official announcement to the bourse than it was before. A closer look at the average abnormal return revealed that announcements of employee layoffs produced either positive or negative stock returns. Generally, based on the general CAAR, this paper concludes that employee layoffs announcements results into a positive abnormal stock returns on quoted companies.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Over the last couple of years, many firms have resorted to layoffs in their struggles to reduce costs. This has been occasioned by vagaries of poor economic environment. With the announcement of these employee layoffs (or downsizing efforts), however, there are diverse market reactions. Downsizing process has several outcomes such as companies getting more profitable or leading to public distrust, which may cause potential investors to back down (Yawson, 2009). This statement is echoed by Wertheim (2011) who observed that "For some firms, there are sufficiently great pessimistic share price response on the material that a company pronounces a layoff, while for others, the market response is remarkably affirmative".

Two conflicting theories have been advanced as to the way the stock markets act in response to announcements of employee layoffs. *Financial Distress Hypothesis* advanced by Worrell, Davidson and Sharma (1991) and *Potential Benefit Hypothesis* advanced by Iqbal and Shetty (1995). The *Financial Distress Hypothesis* by Worrell, Davidson and Sharma (1991) concluded that the signal provided by the layoffs announcements underlines the information about the present adverse financial state of the firm and consequently pessimistic share price responses. Iqbal and Shetty (1995) in their *Potential Benefit Hypothesis* established that firms that participate in a layoff to attain a future advantage thus positive share price responses are anticipated.

Consequently, aspersions have been casted as to the realistic apprehension by the market on these layoffs. Is the announcement of employee layoff heralding a present and/or a future company's financial problems, with the market response expected to be

pessimistic? Or is it seen as a remedy to a present difficulty for the company to succeed with the market response being affirmative?

The current study extends on the studies carried out by Huka (2003) and Mwandembo (2009) on the area of corporate downsizing of firms listed at The Nairobi Securities Exchange (NSE) that examined how stock price of firms listed at the NSE responds to announcements of employee layoffs. These reactions to the announcements are likely to elicit positive, neutral or negative returns based on how the market perceives the announcement.

### 1.1.1 Employee Layoff Announcements

Employee layoffs can be regarded as a permanent extinction, from a company's payroll, a sizeable workforce, Chen et al. (2001). Downsizing can be defined as a purposeful ruling by administration to develop organizational proficiency, throughput and attractiveness, Freeman & Cameron (1993). Dewitt (1998) observes that are three modes of downsizing, that is, one, "retrenchment" which is keeping a company's latitude while sustaining yields. Two, "downscaling" which is a lasting slash in both human capital and physical assets to uphold product line and scope of the market and lowering products so that supply meets demand. Third, "downscoping", which is reduction of a company's market areas through purging product lines and abridging organizational structure and practices.

Worrell et al. (1991), Ursel and Armstrong-Stassen (1995), observed that most investors perceive announcements of layoffs as negative. Depending on form of the market efficiency and the details given in the announcements, nevertheless, announcements can also influence share prices positively. Market efficiency exists in three forms as; the weak, semi-strong and strong form. Weak form efficiency has prices

reflecting only the information captured by historical prices, this seems a bit myopic. Prices adapt to all publicly accessible information (for instance, announcements of rights issue and layoffs), according to semi-strong form efficiency. All information is available to anyone, according to the strong form efficiency (Fama, 1970). Consequently, as all publicly available information is used to determine the effect of layoffs, any surplus fall or rise in share prices will be occasioned by the announcement effect.

Availability of new information will rapidly influence securities' prices. A consequence of this rapid adaptation of prices to new announcements is that prices will wander around their intrinsic values, meaning that positive and negative returns occur randomly (Scholes 1972. Waud (1970) notes that there is statically significant announcement effect on stock returns a day after an announcement is made because the market anticipates it. This is due to non-linear reaction which occur immediately after an announcement is made and is also called abnormal or excess return.

What investors are willing and able to pay for or sell is what determines the price of a security. Scholes (1972), observed that investors can trade their securities either because they possess some information about future performance or just to rebalance their portfolio. When a small amount of stock is sold, this is probably to rebalance a portfolio so the price will not change (no value of information included), moreover, (Fama 1970) posits that when investors sell a large amount of stock, they probably have some information which will force the stock price to decline. Scholes (1972) confirmed that the same explanations are given for investors whom want to buy securities. The information hypothesis stated that when a large amount of stock is sold, there is a solid change in price irrespective of whether the price declines or rises. This, Fama (1970)

observed was due to the information contained in the huge stock sales. When investors are pessimistic about a layoffs or have no credence in it, the price will decline.

### 1.1.2 Stock Returns

What the managers of a company are capable to earn on ordinary shareholders' can be defined as a stock return. Stocks normally generate two types of returns for investors. Reilly and Norton (2006) observe that there are two sources of investment returns: one, Income—where the investment periodically generates cash for the investor in form of interest, dividends, or rent. Two, Changes in price or value—where, overtime, the value or market price of an investment asset could rise or fall.

Reilly and Norton (2006) define holding period as the amount of time an investment is owned. They observe that the percentage return from income and price changes during this time is called holding period return (HPR) which found by dividing the dollar return by the initial purchase price of the investment. This is echoed by Pinto, Henry, Robinson and Stowe (2007) who defined holding period return as what is made from putting in an investment in a given time period. Composed in the stock returns are changes in either the capital or income gains.

Ross et al (2010) observe that the financial markets stock returns is made up of two parts; one, the normal returns which is a function of information contained in what investors regard as stock stimulus for the next coming year. Two risky return that is dependent upon unforeseen news revealed in the year among them being corporate layoff announcements (Komen 2014).

### 1.1.3 Layoffs Announcements and Stock Returns

The relationship between layoff announcements and shareholder value was first studied by Worrell, Davidson & Sharma (1991). Announcement's effects on shareholder

returns positively, neutrally or negatively is twofold: the company's financially perceived state as at when announcements is made and the associated explanations give as to why it is done. Investors will respond positively if they see the layoff as a bailout for the financially troubled firm. The shareholders could respond neutrally if the firm's financial troubles are well known beforehand in that the announcement provides no different information and thus no reaction. Lastly, reaction could be adverse if the announcement is seen as a signal that the firm making the announcement is in financial difficulties.

Elayan et al. (1998) argues that the market response to employee layoffs announcements is a dependent upon the information content. Their argument is that positive response consistent with efficiency hypothesis entails availability of public information on financial difficulties pre- announcement that occasions the decision to firin employee and hope of better results from the shareholders' eyes after the pronouncement. Worrell, Davidson & Sharma (1991) echo these sentiments in their supposition that if shareholders perceive employee layoffs an alternative to companies that are financially perturbed to remain alive, they may interpret it as a good move and respond in a positive way. Return on equity (ROE) is the paramount measure of financial performance and efficacy, Elayan et al. (1998). They also observe that financial glitches could as a result of unproductive workforce and they presented two ratios to measure the labor force's efficiency that is revenue per employee and the net revenue per employee.

Lin & Rozeff (1993) in opposition to efficiency hypothesis, proposed competing decreased demand hypothesis that is comparable stock prices declining hypothesis because employee layoffs and similar cost cut measures are deemed to be a reaction to the dwindling need for a given company's goods and services. They posit that

regardless of the employee layoff is executed so as to maximize shareholders' value, on the contrast, however, the shareholders would comprehend the problem of demand in a bigger way and instead attach weight to that and consequently the market responds adversely to the employee layoff announcements pre-announcement. Contrariwise, if as supported by low ROE shareholders affirm that company has poor standpoint as with the market response anticipated to be indifferent because financial problems are known in advance and thus such a revelation conveys no news the market. This is consistent with the reasoning behind the determinants of labor force efficiency.

### 1.1.4 Companies Listed at the Nairobi Securities Exchange

In the years between 1920 and 1953, share dealing started with trading taking place on a non-formalized agreement without a physical trading floor. Stock brokerage was a reserved to professionals such as accountants, auctioneers, estate agents and lawyers who met to trade privately. As a voluntary association of dealers, The Nairobi Stock Exchange (NSE) was registered under the Societies Act in the year 1954 and is charged with the responsibility of developing the securities market and regulating trading activities.

Nairobi Securities Exchange has witnessed tremendous technological transformation to an automated exchange with automated trading system being implemented in September 2006. As at 31st August 2016, there are sixty five companies listed at the NSE trading their stock and bonds daily. These companies are categorised into twelve main sectors of the economy. They include; Agricultural, Automobiles and Accessories, Banking, Commercial and Services, Construction and Allied, Energy and Petroleum, Insurance, Investment, Manufacturing and Allied, Investment Services, Telecommunication and Technology, and Real Estate Investment Trust. Some of these listed companies occasionally have made corporate layoff announcements.

To track the performance of stocks trading daily, the NSE 20 index is used. Alternative to the NSE 20 index is NSE All Share Index introduced 2008 is used to measure overall market performance, in other words, the overall market capitalization as opposed to price movements of few companies.

Market efficiency categorised into three forms; the weak, the semi-strong and the strong-forms, Fama (1970). The weak-form is one in which prices replicate historical information only, the semi-strong form is where prices adapt to all public information and in the strong-form, prices mirror all information that is available from both the public and private sources. Event studies carried out at the NSE on corporate events such as rights issue by Njoroge (2003), Cheruiyot (2006), Olesaaya (2010) and Otieno (2014) and earnings announcements by Mohamed (2010) concluded that there are abnormal stock returns (positive and negative). Because corporate events (such as rights issue, earnings announcements, corporate layoff announcements) are news that openly available which have been shown to affect stock returns, the NSE market can be inferred to be semi-strong efficient.

Companies must inform the exchange of any new and major information without any delays that may cause price movement in their listed securities in a substantial manner. (The Capital Markets (Licensing Requirements (General) Regulations, 2002). The purpose of these rules is to give the same accessibility of information to all investors and thereby enabling an unbiased market for securities. The NSE listed companies occasionally have engaged in making disclosures, both compulsory and voluntary. Although announcements of employee layoffs are voluntary in nature, managers should make a balance between the reliance of the information and the risk – reward tradeoff of the consequences of non-disclosure.

## 1.2 Research Problem

The theory of signaling posits that information released into the capital markets causes reactions. The interpretation is that positive or negative reactions could be caused by execution of such decisions as employee layoffs. Corporate layoff announcements have been shown to affect share prices depending on the signal perceived by the investors and the market. This was confirmed by Iqbal and Shetty (1995) through the Financial Distress Hypothesis by which in summary concluded that corporate layoff announcements have elicited mixed responses, that is, either positive or negative.

Major layoffs started in Kenya when it was faced with crippling economy and ever increasing foreign debt. These layoffs were as a result of a prescription by the Bretton Woods Institutions of conditions to help the Government of Kenya to turn around the prospects of the Economy. The prescription included a number of measures that revolved around improving efficiency in public service such as commercialization of public institutions such as Kenya Railways, Kenya Airways (2003-2004) and Kenya Posts and Telecommunication Company as well as reducing staff levels at the Civil Service. The results were an increased efficiency which is measured by profitability. There have been a number of employee layoffs since then by both private and quoted companies in Kenya.

Most studies about market reactions to corporate layoffs have been done in the developed countries such as the U.S market whereby the studies were done by among them WDS (1991), Lin and Rozeff (1993), Palmon, Sung and Tang (1997), Elayan et al. (1998) Chalos & Chen (2002) and in U.K markets whereby researches were done by Collet (2002), Mc Knight, Lowrie and Coles (2002) and in Japan by Lee, (1997). Generally, these researches give mixed results on the effects of corporate layoffs on stock returns. The interpretation of these mixed results is that there is no settlement on

the effects of corporate layoffs on stock returns. As there have been no settlement as to how corporate layoffs have elicited responses on stock returns of firms listed at the NSE, it was impossible to generalize the direction of market reaction as instigated by the announcement of corporate layoffs, hence there existed a gap.

In Kenya, most studies touching on corporate layoffs investigate other areas other than the effects of those layoffs on stock returns of listed firms at the NSE. Mwandembo (2009) sought to examine staff layoffs in Kenya and concluded that downsizing not only reduces staff motivation levels but also encourages knowledge flight in favor of competition which in turn leads to hampered innovation and overall negative firm reputation. Huka (2003) studied downsizing staff practices among the major oil firms in Kenya and concluded that most of the oil companies had more than one reason and alternatives to downsizing. Therefore, based on these few locally done studies, no research has been done to investigate the effects of rmployee layoff announcements on the firms listed at the NSE and thus there existed a gap that this study sought to fill. The current study researched on effects of Employee layoffs announcements on stock returns firms listed at the NSE. Guiding the study was the research question: What is the effect of employee Layoff Announcements on the stock returns of the firms listed at the NSE?

### 1.3 Research Objective

The purpose of this study was to investigate the effects of Employee Layoffs Announcements on the firms listed at the NSE.

### 1.4 Value of the Study

Managers of companies will find this material a useful source of information on effects of layoff announcements on security prices of their companies. Specifically, it will help

them formulate appropriate strategies that will help minimize the negative impact of corporate layoffs announcements.

The government is the ultimate bailer of failing companies. The government will learn useful lessons to influence formulation of policies affecting different industries. It will also, through The National Treasury, use findings on this study in reviewing the policies governing operation of the stock exchange in particular.

The study will form a basis for literature review for researchers interested in the same field. They will also use the findings to improve on the gaps in the study. Academicians will use the findings as an educational reference especially to do with areas of layoff effects on stock returns. The study will highlight areas that require future investigations at the end consequently will form a foundation for future researchers to formulate their research problems.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This section deliberates on the theoretical review of the random walk hypothesis, signaling and efficient market hypotheses, empirical literature review from previous researches and their summaries.

## 2.2 Theoretical Review

Deliberated in this part are some of the theories that have been explored to delineate the relation between corporate layoff announcement effects and stock returns. Reviewed theories by the researcher in this study are: The Signaling Theory, theory of Random Walk and Efficient Market Hypothesis.

### 2.2.1 The Random Walk Hypothesis

The theory of random walk posits that stock prices wander randomly about their intrinsic values and thus cannot be predicted; meaning that, information gets to the stock market haphazardly and evokes unsystematic responses of the security prices. Random walk theory contends that stock price movements have no predictable pattern and as such they cannot be a forecast of the future (Fama, 1969). In other words, prices of securities are self-determining and their probability distribution is homogenous, thus take uncertain course.

Louis Bachelier (1900), a French mathematician, was the first to study of the he unsystematic movement of particles and thus the examination of random walk theory can be attributed to him. Kavalerchik (2010), observed that this first study and its consequent effects has elicited discourses as to whether stock movements are completely unsystematic, semi-variable, or absolutely predictable.

Rivalry among market players, will on average occasion instantaneous reflection of new information effects in actual prices; according to efficient market theory. Conversely, as a result of ambiguity surrounding new information, prompt adaption is twofold: one, over adjustments as well as under adjustments in actual prices will first occur to changes in fundamental values. Two, eventually, the overall adaptation of actual prices to consecutive new fundamental values will be independent by its own, occasionally with adaptation of actual prices coming pre- event and post-event. This important assumption of an efficient market means that there will be independence in consecutive price changes in individual securities. In this context, corporate layoff announcements may evoke random share price changes.

### 2.2.2 The Efficient Market Hypothesis

Fama (1965), in his efficient market theory argues it is impossible to outwit a market because all information available is already reflected in stock prices. Disputes have emerged among researchers as to how efficient the market really is and its measurability. Efficiency of the market has different degrees that is, strong, semi-strong and weak degrees.

According to the weak form efficiency, prices are reflected only by the information captured by historical prices, this seems a bit myopic. The semi-strong form efficiency on the other hand, prices adjust to all publicly available information (announcements of rights issue, layoffs, etc.). In the strong form efficiency prices reflect all information that is available, both from private and public sources, (Fama, 1970). Consequently, as all publicly available information is used to determine the effect of corporate layoffs, any surplus fall or rise in share prices will be occasioned by the announcement effect and thus we can assume that the market efficiency is semi-strong.

### 2.2.3 The Signaling Theory

The signal equilibrium theory by Spence (1973), in summary, posits that good and bad companies separate themselves through disseminating sound signal about its worth in capital markets. A signal will be perceived as worth only if it is inimitable by the bad company. The signal cost will be worth imitating is if it is lesser good type company.

The theory presupposes that any given time, there is uneven distribution of among all parties in the market. As a result of information unevenness between management and investors, signals from companies play a key role for the capital acquisition. Ross (1977) illustrates how financial obligations could be used as a costly signal to distinguish bad from good companies. He contends that managers have knowledge of the true distribution of firm returns as opposed to investors. Appetite of higher debt signals that managers are optimistic of the future thus high quality firms would expend extra debt in contrast to companies of lower quality. As a result, a good company can separate itself from a bad one by drawing public attention the latter will be reluctant to subject itself to open to scrutiny.

Three scholars, that is, Spence (1973), Leland and Pyle, Ross (1977), Rennan and Kraus (1984) proposed two types of signals: A costly and costless signal. A signal is costly if it is associated with a loss and the opposite is true for a costless signal. In this regard; one, corporate layoffs announcements made by firms in attempts to achieve a future benefit, sends a signal to the investors that such a company has better future prospects and hence market response will be positive. Two, corporate layoffs announcements confirms news about the present adverse financial state of the announcing company thus sends a bad signal to the investors and hence the reaction will be negative.

## 2.3 Determinants of Stock Returns

Sharpe (1964), Lintner (1965), and Mossin (1966) in their CAPM model answered the question of what determines stock returns and concluded that normal or expected stock returns have a positive and a linear relationship with systematic market risk. Conversely, doubts have been casted about CAPM in the past years with observed proof suggesting that betas do not satisfactorily demystify variances across sections in mean returns. As an alternative, mean stock returns have been shown to be affected by several other variables such as, a firm's size, earnings to- price, book-to-market equity, leverage profitability, asset growth or past stock returns Basu (1977), Cooper et al. (2008).

Those models resonate with what Pinto et al (2007) proposed: that stock returns are affected by macroeconomic factors as well as fundamental factors. These factors represent priced risk to investors as a compensation for additional risk borne.

### 2.3.1The Macroeconomic Factors

The macroeconomic factors are factors concerning a wider economy that touches a global population as opposed to a few individually selected factors like anticipated inflation rate, interest rates, gross domestic product, market indices, yield curves, exchange rates (Pinto et al, 2007). Naik and Padhi (2012) noted that there is a direct relationship between stock returns and money supply and industrial production but an inverse relationship with inflation. In determining stock returns, the interest rate in the short-run and the exchange rate are found to be inconsequential. They observed that macroeconomic variables influence stock returns in the long run than in the short run.

### 2.3.2 Fundamental Factors

Fundamental factors are qualities of a company or a stock that are key in describing stock returns. Fundamental factors regularly used include; price to earnings ratio, market capitalization, financial leverage, dividends, book to market value, liquidity and firm size (Bodie, Kane and Marcus 2009). Agrawal (2011) notes that perhaps the most main factor that determines stock price is its earnings. However much good a company is, failure to make positive earnings at some point will make die.

A cross-section of stock returns is influenced by investor feelings, Baker and Wurgler (2006). These sentiments are the feelings of positivity or negativity regarding stocks generally. These sentiments generates investors tendency to speculate. The sentiment motivates the need for speculative investments leading to cross sectional disparities in return. An upsurge of these investor feeling of positivity or negativity huge influence on returns of securities. Lower investor sentiment occasioned subsequently high comparable returns for small, young, high volatility, unprofitable, non-dividend-paying stocks, extreme growth and distressed stocks. With high sentiments, however, the consequent returns of these categories of stock earn comparatively lower.

## 2.4 Empirical Review

This section discusses the empirical evidence of prior researches that investigated the effects of corporate layoff announcements on security prices at the securities exchange markets.

An examination of 197 announcements of layoffs by Worrell, Davidson and Sharma (1991) for 8 years that featured in the Wall Street Journal revealed that for the eleven event window overall stock price reaction was significantly negative. Their conclusion was that the announced layoff sent a signal that the announcing companies' problems

were serious and consequently elicited adverse market reaction. Their results are consistent with the theory of financial distress.

In their research of 187 announcements of layoff that were published in the Wall Street Journal of three years, Iqbal and Shetty (1995), found that for the event window of two days that stock price response was overally significantly pessimistic. They used cumulative mean prediction errors and their outcomes are in tandem with the earlier research done by WDS (1991). In addition, Iqbal and Shetty investigated disparities in reactions of stock price in response to the announced layoffs of financially poor and good companies. Their findings was that the financially poor companies had witnessed positively significant share price response more than the financially good companies and thus their findings vary with what conflict with what Worrell, Davidson and Sharma found out in their paper that financially poor companies witnessed stock price responses that were more-negative. Instead, Iqbal and Shetty ascribed this to the theory of potential benefit.

Exploring how plant closing announcements elicits share price responses, Gombola and Tsetsekos (1992), examined the financial characteristics of 187 companies making such announcements and concluded that financially poor companies experienced negative significant responses than better ones and thus this is in line with the theory of financial distress.

From 1989 to 1992, Ursel and Armstrong-Stassen (1995), using a sample of 137 Canadian companies sought to investigate how share prices were affected by layoffs. The AARs they used over the two days event period revealed that overally those announcements elicited negative responses. Additionally, they discovered that firms making such announcements for the first time experienced more negative responses

than subsequent ones and that this also depended on the magnitude of the announced layoffs, that is, bigger layoffs evoked more negative reactions than smaller ones. Their research supported the theory of Worrell, Davidson and Sharma (1991) that contends that layoffs evokes negative share price responses.

Investigating 48 bank layoffs announcements with a view to establish share price response to announcements of bank layoffs, Madura, Akhigbe and Bartunek (1995), concluded that there were negative mean abnormal returns observed on the event date. They observed positive significant responses for related portfolios of non-rival bank layoffs on the event date. Share price responses were much positive on the event date for rival banks not announcing layoffs than the banks making such announcements.

In a study of 513 corporate downsizing announcements published in the Wall Street Journal between 1987 and 1991, Caves and Krepps (1993), in an event window of three days found that overally there was a negative significant share price response and their conclusion was that their outcomes are in line with the theory of financial distress that posits it that layoffs elicit adverse market responses.

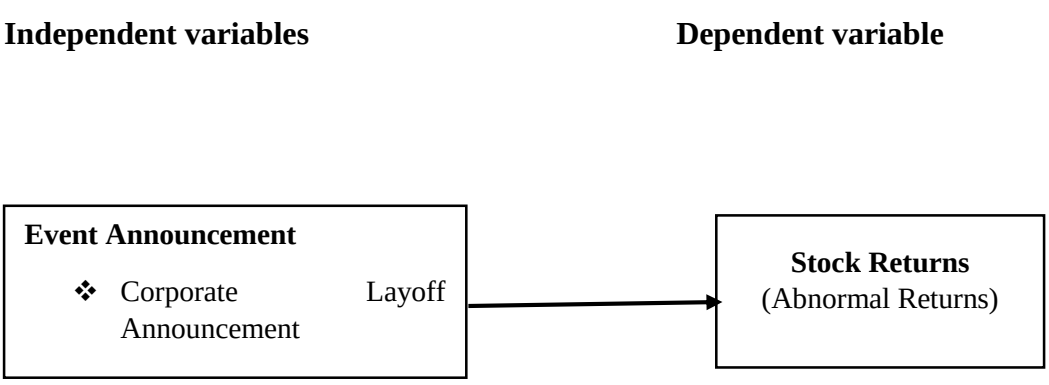
Finally, Gunther and Tatu (2012) examined 1,605 layoff announcements for a period from 2002 to 2010. Their findings is that overall stock market response to layoffs announcements is insignificantly negative.

Despite there having no locally done studies to investigate corporate layoff announcements effects at the NSE, event studies investigating on how the NSE market reacts when announcements have been done notably touching on rights issue and earnings announcement. Studies done by Njoroge (2003), Cheruiyot (2006), Olesaaya (2010) and Otieno, O.D and Ochieng' (2014) on the effects of rights issue announcements show that there have been abnormal stock returns. This is also

confirmed by Mohamed (2010) in an event study done on earnings announcements whereby he found statistically negative abnormal returns were observed in the post and pre earnings announcements of firms listed at the Nairobi Stock Exchange.

## 2.5 Conceptual Framework

**Figure 1**




Shown in figure 1 above is the conceptual framework of the study that clearly demonstrates how the dependent and independent variables relate. The figure depicts independent variable as an event announcement (corporate Layoff Announcement) that the researcher intends to study in order to establish its influence on the stock returns (the dependent variable) as measured by abnormal returns.

## 2.6 Summary of the Literature Review

The random walk, signaling and efficient market have been deliberated on as the theories that underpin this study. The stock returns determinants were also discussed.

There are varied conclusions about market reactions to layoff announcements. WDS (1991) established that the announcements of layoffs elicited negative market response and this confirmed the financial distress hypothesis. This is further supported by Ursel and Armstrong-Stassen (1995), Caves and Krepps (1993) and Gunther and Tatu (2012)

who found out that stock price response overally insignificantly negative. However, Iqbal and Shetty (1995) observed that corporate layoff announcements elicited positive share price response. This is in support of potential benefit hypothesis. In summary, these researches give mixed results on the effects of employee layoffs announcements on stock returns. These varied outcomes therefore imply that there is no settlement on the effects of employee layoffs announcements on stock returns.

Bearing in mind that global studies evidences both negative and positive impacts, and that there are no locally done studies on the said subject of corporate layoff announcements, this paper endeavors to expand the knowledge on the reaction of stock returns when employee layoffs announcements are made.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

Deliberated in this section is the research design used in the investigation, the population and sample, data collection procedures, diagnostic tests and analysis of data.

## 3.2 Research Design

A conceived structure and plan aimed at obtaining research questions' answers can be defined as a research design and it is the master plan of the research. Although many definitions have been put forth, none of them defines in full all the important aspects, Cooper & Schinder (2001.

An event study research design was selected in this study. The justification for its choice was that because event studies are aimed at examining the behavior of firm's stock price in response to such economic events as corporate layoff announcements being investigated in this study. The design was preferred because the study aimed at determining the effects of employee layoffs announcements on stock returns of firms listed at the NSE.

## 3.3 Population and Sample

The whole set of all observable characteristics from which we wish to draw some inferences can be defined as a population, (Cooper and Schindler 2000). A sample is a sub set of a population. Cooper and Schindler (2003) observe that the main aim of sampling is that by selecting a few of the objects of a population, deductions may be drawn about the whole population, Sekaran (2000) concurs with this view, stating that

by a study of the sample and apprehension the objects of the sample would make it be possible to generalize the observations to the population elements".

The population consisted of the all sixty five companies that are listed at the NSE for the entire period of study (2013-2016). This, being the most current period, was insightful of the up-to-date happenings in the NSE market. A purposive sampling method was applied in this study because such a method entails selecting only the objects that are of particular interest to the researcher, Neuman, (2000). In this case, only the companies listed at the Nairobi bourse that have made employee layoff announcements. The sample elements was the six companies quoted in the NSE that had recently announced layoffs through year 2013 to 2016. Refer to appendix 3

### 3.5 Data Collection

Secondary sources of data from Nairobi Securities Exchange were used in this paper such data included daily closing stock prices, market index, and announcement dates. Data collection sheets were used to capture information on companies that announced their layoffs during the period; date of announcement, market index and daily closing share prices over an event window of 10 days pre and 10 days post- announcement with the announcement date being day zero. This was because the study aimed at examining the effect of layoff announcement on stock return and extending the period of data collection could have led to changes in stock returns due to other market factors.

### 3.6 Diagnostic Tests

Test statistics were computed to test Average Abnormal and Cumulative Abnormal Returns statistical significance pre-, at and post-announcement date at 95% level of significance. In addition, this paper tested at confidence level of 95%. For significance

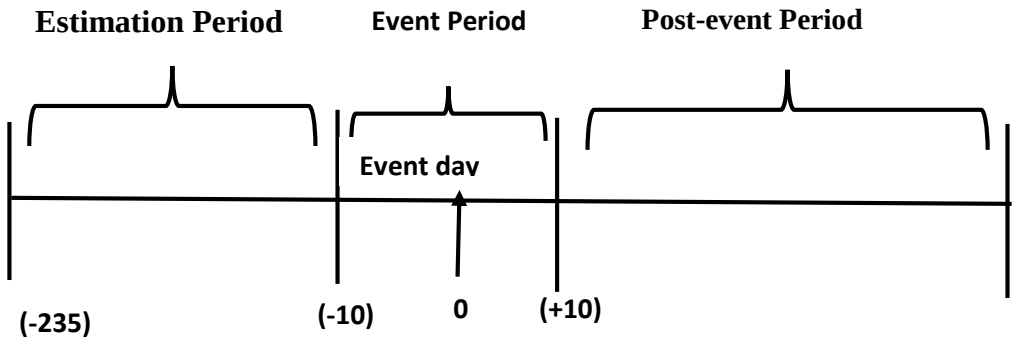
computed values of more than absolute 1.96, it was concluded that the event was significance and vice versa.

### 3.7 Data Analysis

In this paper, analysis of data was conducted through a standard event study proposed by MacKinlay (1997) with Microsoft Excel application package used as a statistical tool. The steps involved were as follows;

One; identification of the event of interest and the pertinent time, in this case, the employee layoff announcements. The pertinent time here involved identification of the exact date when the announcement was made (t=0), the estimation period (that is when alphas and beta of individual stock were obtained denoted as t=225,) and the event window [-10, +10] that is where the abnormal returns were calculated.)

**Figure 2: Event study time line. Event day (t=0), Event Period (t=T1 to t=T2), and estimation window (T0 to T1). Parentheses represents the study's actual dates.**




After the event of interest was identified (Employee Layoff Announcements), the firms that had recently announced those layoffs were identified. The next step was estimation of stock returns using a market model for the firms sampled with the day's normal return $\boldsymbol{E}(\boldsymbol{Rit})$ for company $\boldsymbol{i}$ on day $\boldsymbol{t}$ computed as:

$$\boldsymbol{E\,(Rit\,)\;=\;\alpha i\;+\;\beta i\;*\;Rmt\;+\;\varepsilon it}$$

Where: $\boldsymbol{\alpha i}$ & $\boldsymbol{\beta i}$ are ordinary least squares values.

$\boldsymbol{Rmt}$ is day's t daily market return on day**.**

If $\boldsymbol{E(eit)=0}$, then,

$\boldsymbol{E\,(Rit)\;=\;\alpha i\;+\;\beta i\;*\;Rmt}$ and;

$$\boldsymbol{ARit\;=\;Rit-\alpha i-\beta i\;*\;Rmt}$$

Where: $\boldsymbol{ARit}$= abnormal return for company $\boldsymbol{i}$ during time period $\boldsymbol{t}$.

$r_{it}$ = actual return for company $\boldsymbol{i}$ during time period $\boldsymbol{t}$.and;

$\boldsymbol{E\,(Rit)}$ expected return, for company $\boldsymbol{i}$ during time period $\boldsymbol{t}$.

A regression analysis was used to obtain betas which assessed daily returns for individual stocks against the returns of the market over 235 trading days as an estimation period pre- announcement. The (αi) and (βi) are the intercept and the slope respectively after regressing. Daily returns during the event window of the market are used to estimate daily stock return a company. As a proxy of the market, The NSE 20 index was used. Expected returns are then subtracted from the actual returns for the event window for individual company within the sample.

Lastly, each day's abnormal returns were summed across all companies in the sample and were examined to establish whether, on average, the announcement yielded either positive or negative returns that would otherwise be different from the normal or expected returns. The $\mathbf{AR_t}$, mathematically is expressed as follows:

$$\boldsymbol{ARt=\frac{1}{n}\sum_{i=1}^{n}ARit}$$

with n being the observations made and across the sample averaging being to remove noise associated with each company's returns. This allows the researcher draw inferences about the event under investigation. Again Cumulative abnormal returns gotten by summing up abnormal returns across time were standardized to establish if cumulatively, the returns were statistically significant. The daily (CAARs) for event window [T0, T1], were computed as follows:

$$\boldsymbol{CAARi(T0,T1)} = \sum_{\boldsymbol{T1}}^{\boldsymbol{T1}} \boldsymbol{AARt}$$

### 3.7.1 Tests of Significance

Tests of significance were carried out a 95% level of significance. The t tests were computed as follows:

A standard test statistic under the null hypothesis was obtained by dividing $\boldsymbol{AARt}$ by an estimate of its standard deviation as;

$$\boldsymbol{tAARt} = \sqrt{\boldsymbol{N}}\frac{\boldsymbol{AARt}}{\boldsymbol{SAARt}}$$

where $ARt$ is day t abnormal return, and where variance, $SAARt$, is given by :

$$\boldsymbol{S^2AARt} = \frac{\boldsymbol{1}}{\boldsymbol{N-1}}\sum_{\boldsymbol{I=1}}^{\boldsymbol{N}}(\boldsymbol{ARi,t-AARt})^{\boldsymbol{2}}$$

This test statistic is assumed to be unit normal. Similarly, the t-statistic for the cumulative average abnormal daily abnormal returns ($CAARs$) was calculated as:

$$\boldsymbol{tCAAR} = \sqrt{\boldsymbol{N}}\frac{\boldsymbol{CAAR}}{\boldsymbol{SCAAR}}$$

Where $\boldsymbol{SCAAR}$ is the standard deviation of the cumulative abnormal returns across the sample and is given by:

$$\boldsymbol{S^2\ CAAR = \frac{1}{N-1}\sum_{i=1}^{N}(CARi - CAAR)^2}$$

# CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This paper explored what share price responses are elicited by the announcements of employee layoffs announcements by the companies listed at the Nairobi Securities Exchange and it covered three years beginning form the year 2013 to 2016. Data was collected from the NSE to cover the 21 day event window and consisted of daily closing share prices of the sampled companies in order to evaluate price movements. After the exact event date was established, a market model, developed by Sharpe (1963), was used to assess whether there were abnormal returns around the layoff announcements.

## 4.2 Descriptive statistics

**Table 1: Summary statistics of Average and Cumulative Abnormal Returns for the six sampled companies**

| | **Mean** | **Std Dev** |
|---|---|---|
| **AAR** | 30.7290% | 0.8777% |
| **CAAR** | 0.6607% | 5.2663% |

**Source: Research Findings**

The mean and standard deviation of average and cumulative abnormal returns have been tabulated in table 1 as descriptive statistics for all the six sampled companies at the NSE. As evident from the table 1 above, all the standard deviations are comparatively small, and thus it can be inferred that it is highly probable that the sample mean is closer to the mean of the population.

**Diagnostic statistics**

**Table 2: T statistics for a 21 day event period for the six sampled companies at the NSE**

| t (day) | $AAR_t$ | t - statistic of $AAR_t$ | t critical@5% level | Significance? |
|---|---|---|---|---|
| -10 | -0.57% | -1.60 | 1.96 | No |
| -9 | 0.13% | 0.37 | 1.96 | No |
| -8 | 0.19% | 0.54 | 1.96 | No |
| -7 | 0.26% | 0.73 | 1.96 | No |
| -6 | 1.41% | 3.94 | 1.96 | Yes |
| -5 | -0.72% | -2.01 | 1.96 | Yes |
| -4 | -1.25% | -3.50 | 1.96 | Yes |
| -3 | 0.76% | 2.11 | 1.96 | Yes |
| -2 | -1.37% | -3.83 | 1.96 | Yes |
| -1 | 2.09% | 5.83 | 1.96 | Yes |
| 0 | -0.09% | -0.24 | 1.96 | No |
| 1 | -0.43% | -1.21 | 1.96 | No |
| 2 | 0.04% | 0.11 | 1.96 | No |
| 3 | -0.30% | -0.84 | 1.96 | No |
| 4 | -0.50% | -1.40 | 1.96 | No |
| 5 | 1.45% | 4.03 | 1.96 | Yes |
| 6 | 0.03% | 0.07 | 1.96 | No |
| 7 | -0.03% | -0.08 | 1.96 | No |
| 8 | 1.29% | 3.59 | 1.96 | Yes |

| | | | | |
|---|---|---|---|---|
| 9 | 0.07% | 0.19 | 1.96 | No |
| 10 | -0.13% | -0.35 | 1.96 | No |

**Source: Research Findings**

Test statistics were computed to test Average Abnormal and Cumulative Abnormal Returns statistical significance pre-, at and post-announcement date at 95% level of significance. For absolute t-calculated values of more than 1.96, it was concluded that the event was significance and vice versa.

### 4.4 T- Statistics

#### 4.4.1 T – statistics for the 20 days surrounding the Employee Layoffs Announcements

Data analyses of the six sampled companies at the NSE have been done by computing the average abnormal returns within the event period of twenty one days, that is, ten days pre- and ten days post - the day announcements of employees' layoffs was made. A t-test statistic was carried out at 95% level of significance in order to ascertain how the share prices responds when information of employee layoff announcement officially reaches the NSE. Additionally, daily mean Abnormal Returns were summed to obtain CAR was which was then standardized in order to draw inferences about the total outcome. The results for all the six sampled companies are shown in appendix 4.

To establish stock returns' sensitivity to the announcements of employee layoffs, t-statistics for a 21 day event window were computed as shown in appendix 4. The absolute values of t-calculated of greater than 1.96 meant that the share prices were sensitive to the announcement. A day pre-employees' layoffs announcement, [t=-1], the calculated t value increased to + 5.83 and thus responded positively to the announcement. This indicates that the market had identified those companies that had

tribulations early in time of the day on which news of layoffs officially got into the bourse and had started to anticipate the information in a rational manner. Consequently, this is a clear signal that share prices are sensitive to layoff announcements. Post-announcement Abnormal Average Returns are small and insignificant from day t=1 to day t=4 meaning that the market evaluated and reacted to the news of employee layoffs.

### 4.4.2 Average Abnormal Returns during Employee Layoffs Announcements

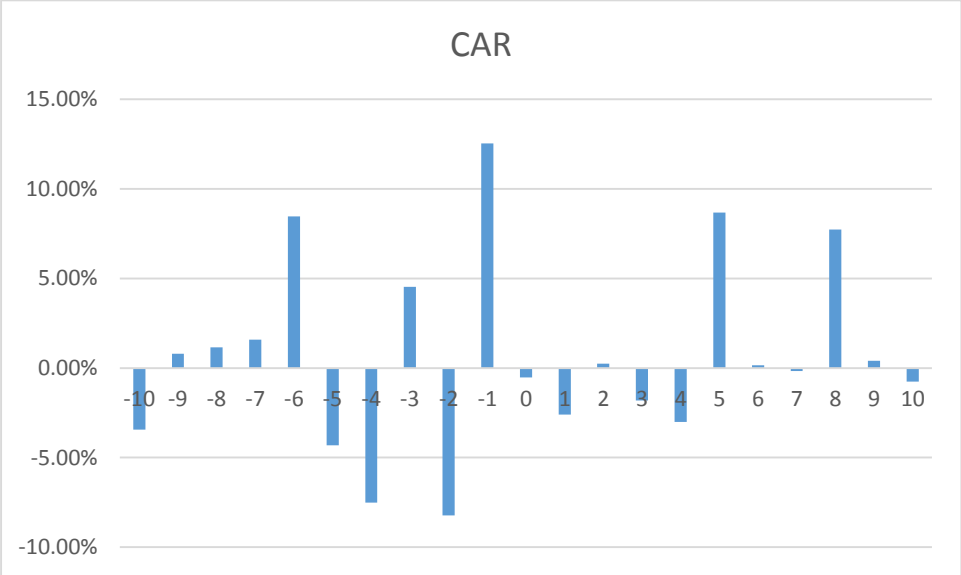
A day before the layoff announcement officially reached NSE, [t=-1], positive mean abnormal returns of 2.09% were experienced by the market. Four days after the announcement, [t=+1 , t =+4], the market experiences less than 1 average abnormal implying that no news are disclosed by the real employee layoff announcement and thus the markets does not confirm the anticipations as a fact.

## 4.4 Cumulative Average Abnormal Returns during the employee layoffs announcement

Presented in Figure 3 below the results of average abnormal effects of Employee Layoffs Announcements.

The large pre-announcement positive CARs a day before the announcement officially reaches the NSE demonstrates that the market had identified those companies that had tribulations early in time of the day on which news of layoffs officially got into the bourse and had started to anticipate the information in a rational manner. The post-announcement CARs that are small and insignificant suggests that market reacts quickly to news of layoffs.

**Figure 3: Cumulative average abnormal return (CAAR) for 21 days' event period for the sampled six employee layoff announcements**




**Source: Research Findings**

### 4.5 Interpretation of findings and discussions

Some reasons could be given to explain the findings. Year 2013 was a difficult year for most companies that had financial difficulties and some programs such as reorganization and rationally of staff designed to save these companies were expected thus the explanation why the bourse experience less negative share price response. Second, the frequency of the announcements and the accompanying reasons was so high such that they had decreased information content. The results from table above reveal that investors perceive employee layoffs as an attempt for the companies to achieve a future benefit and thus reacted correspondingly with a CAAR of 13.87% for a 21 days event period. Thus, investors perceive layoff announcements as a positive signal. This concurs with what Yawson (2009) observed: layoffs programs could result to reduced labor, improved productivity and increased company performance which could in turn evoke positive share price responses.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

Outlined in this section is a discussion of summary of the study and conclusions of effects of employee layoff announcements on share prices of firms listed at the NSE, the limitations of the study and suggestions for further research.

## 5.2 Summary of the Study

This study was carried out to establish the effects of employee layoffs announcements on stock returns of firms listed at NSE using an event study methodology over an event period of 21 days [-10, +10]. Average abnormal return analysis show that for the 21 days surrounding the employee layoffs announcements of the six sampled companies at the NSE, four of the six companies had positive abnormal returns which lead to a positive cumulative abnormal average return of 13.87% for all of the sample.

An analysis of the various CAAR around the employee layoffs announcements disclose that there were both positive and negative abnormal returns. This is consistent with the literature especially the theory of random walk which posits that stock market prices wander randomly about their intrinsic values and thus cannot be predicted; meaning that, information gets to the stock market haphazardly and evokes unsystematic responses of the security prices. Random walk theory contends that stock price movements have no predictable pattern and as such they cannot be a forecast of the future (Fama, 1969). In other words, prices of securities are self-determining and their probability distribution is homogenous, thus take uncertain course.

The CAAR for the two days prior to the announcement is 0.020035 and is positively significant with a t-statistic of 3.186843. The interpretation is that the employee layoff announcements response occurs mostly in the event window [-1, 0] or a day pre-announcement. This is consistent with the theory of Efficient Market that posits that as a result of ambiguity surrounding new information, prompt adaption is twofold: one, over adjustments as well as under adjustments in actual prices will first occur to changes in fundamental values. Two, eventually, the overall adaptation of actual prices to consecutive new fundamental values will be independent by its own, occasionally with adaptation of actual prices coming pre- event and post-event.

The overall CAAR are also positively significant at 13.87%, indicating that the potential benefit dominates for most of the sampled companies. This is in line with the potential benefit hypothesis postulated by Iqbal and Shetty (1995). They argued that the markets captures the adverse news related to layoffs pre-announcement and now it is incorporating positive information about the benefits to be achieved by the layoff and this elicits the positive share price responses.

### 5.3 Conclusions

It was found that the t value calculated on a day pre- announcement day was higher than the t critical value of 1.96 and thus an indication that market share prices are sensitive to the market. These empirical results from the NSE are in tandem with prior researches indicating a positive average abnormal share price reactions to announcements of layoffs and thus is fairly comparable to other markets studied.

The results show that the market begun anticipating the announcements in a rational manner, that is, the market fully captured news pre-event. In fact, it seems that the layoff news were fully priced by the market pre-event as evidenced by insignificantly small

abnormal returns on the event day. This supports the costless signal theory postulated by Ross (1977) which suggests that a positive average response and neural response on the day of announcement.

### 5.4 Recommendations

There is an overall insignificant positive share price response to the news of employee layoffs. The accompanying explanations as to why layoffs are executed is the main cause of how the reaction will be. As evidenced from the results of this study, there were statistically positive share response a day pre-announcement and thus companies should always state the reasons why they are executing layoffs because these explanations are the pertinent proxies for the perceptions of shareholders as it pertains the future growth and profitability of a given company.

### 5.5 Limitations of the Study

Event studies are frequently used in the discipline of finance. However, there exists a number of challenges:

First, announcements could be adulterated either by past or current news. This can have a baffling effect that can render the event study outcome weak as the observed abnormal performance may not be associated with the event under investigation.

Secondly, the study relied solely on secondary sources of data, that is, already published data from the NSE and this means that the benefits of primary sources of data which could have yielded more in-depth information for easier and better analyses for better results were not exploited.

Third, the study was limited in terms of time, that is, it only covered the period of time between years 2013 to 2016. This is a relatively short period of time and hence all the factors that affect stock price reaction due to layoffs such as information content and

characteristics of the firms making those announcements were not investigated under the current study.

Forth, in some instances, the information source is rather scanty and sometimes insufficient. For instance, the exact event date could not be identified with certainty and in some cases the necessary data for some companies were unavailable during the event window. The resulted in a smaller sample size which may not precisely replicate the realistic scenario at the NSE.

Fifth, the research examined the reaction of stock market reaction to employee layoffs announcements and hence it did not divorce good and bad employee layoff announcements and consequently either of the good or bad announcements could have overshadowed the other and thus impacted the results of the study.

### 5.6 Suggestions for Further Research

Further to investigating the effects of employee layoff announcements on the firms listed at the NSE as discussed in this study suggestions for further research have been recommended.

Researchers should adopt a detailed and comprehensive study by exploring other factors such as the possible effects of employee layoffs announcements on an announcing firm's rival.

The study period should be expanded to capture more information like the characteristics of the announcing firm and how such evoke share price reactions

The further researches on the area should consider using both primary and secondary sources of data to capture in-depth information which would improve on the quality and make it easier for analyses to reach the desired results.

The sample size should also be expanded so as to access more information from companies which could lead to better results to enable more precise and realistic conclusions situation about the NSE.

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## APPENDICES

### Appendix 1: Data collection sheet for companies that have announced layoffs from year 2013 to 2016.

| S/No | Name | Announcement Date | Employees | Index |
|---|---|---|---|---|
| 1.0 | | | | |
| 2.0 | | | | |
| 3.0 | | | | |
| 4.0 | | | | |
| 5.0 | | | | |
| 6.0 | | | | |
| 7.0 | | | | |
| 8.0 | | | | |

### Appendix 2: Sample Data Collection Sheet for Individual Companies that have announced layoffs from year 2013 to 2016

| Daily stock prices during the event window | | |
|---|---|---|
| **Date** | **Share Price** | **Index** |
| t=--10 | | |
| | | |
| t=0 | | |
| | | |
| t=+10 | | |

### Appendix 3: Companies that have announced layoffs from year 2013 to 2016

| S/No | Name | Year Announcement Made |
|---|---|---|
| 1.0 | Uchumi Supermarkets | 2016 |
| 2.0 | Kenya Airways (KQ) | 2016 |
| 3.0 | National Bank of Kenya (NBK) | 2014 |
| 4.0 | Co-Operative Bank of Kenya | 2014 |

| | | |
|---|---|---|
| 5.0 | Mumias Sugar Company Ltd | 2014 |
| 6.0 | Barclays Bank of Kenya(BBK) | 2013 |

**Appendix 4 Daily average abnormal returns (AR), cumulative average abnormal returns (CAR), t-statistics, for the sample of 6 layoff announcements, during the 21 day event window**

| t (day) | $AAR_t$ | CAR | t - statistic of $AAR_t$ | Significance? |
|---|---|---|---|---|
| -10 | -0.57% | -3.45% | -1.60 | No |
| -9 | 0.13% | 0.80% | 0.37 | No |
| -8 | 0.19% | 1.15% | 0.54 | No |
| -7 | 0.26% | 1.58% | 0.73 | No |
| -6 | 1.41% | 8.46% | 3.94 | Yes |
| -5 | -0.72% | -4.32% | -2.01 | Yes |
| -4 | -1.25% | -7.52% | -3.50 | Yes |
| -3 | 0.76% | 4.53% | 2.11 | Yes |
| -2 | -1.37% | -8.23% | -3.83 | Yes |
| -1 | 2.09% | 12.54% | 5.83 | Yes |
| 0 | -0.09% | -0.52% | -0.24 | No |
| 1 | -0.43% | -2.61% | -1.21 | No |
| 2 | 0.04% | 0.24% | 0.11 | No |
| 3 | -0.30% | -1.82% | -0.84 | No |
| 4 | -0.50% | -3.01% | -1.40 | No |
| 5 | 1.45% | 8.67% | 4.03 | Yes |
| 6 | 0.03% | 0.15% | 0.07 | No |
| 7 | -0.03% | -0.18% | -0.08 | No |
| 8 | 1.29% | 7.72% | 3.59 | Yes |
| 9 | 0.07% | 0.41% | 0.19 | No |
| 10 | -0.13% | -0.76% | -0.35 | No |

**Source: Research Findings**

**Appendix 5 Sample Employee Layoff Announcement**

**PRESS RELEASE**

**UCHUMI SUPERMARKETS LIMITED CLOSES BRANCHES IN RATIONALISATION PROCESS**

**Nairobi, Kenya, March 21st 2016…**Uchumi Supermarkets Limited has today announced the termination of operations in five (5) outlets within Kenya as part of its

reorganization process. The closure of these branches which include Taj Mall, Embu, Eldoret Sugarland, Nakuru and Kisii will help reduce the retailer's operational costs enabling it to concentrate its efforts on a leaner structure as dictated by the current business environment.

Uchumi's Chief Executive Officer, Dr. Julius Kipng'etich, said that Uchumi is well on track to recovery and that the move is expected to hasten the retail chain's rise to sustainability. "Their closure will enable us channel our resources to fewer branches and optimize operations for maximum gain," said Kipng'etich.

The retail chain has adhered to all the required legal & statutory requirements in implementation of this decision. In the process, 253 positions will be rendered redundant.

**ENDS.**

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