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11-DAY CYCLE OF STOCK PRICES IN KENYA AROUND PROFIT WARNINGS

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the Research Project contains no material previously published or written by another person except where due reference is made in the Research Project itself.

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This Research Project has been submitted for examination with my approval as the Supervisor.

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ABSTRACT

A profit warning is a statement issued by a company in order to inform the public that the profits for a specified period will be significantly different from the expected profit levels. The Capital Markets Authority, which is responsible for the regulation of the stock exchange, in a bid to reduce the levels of information asymnetry and conflicts of interest between managers and shareholders, made it a requirement for all companies listed on the Nairobi Stock Exchange to issue profit warnings if their profit will be 25% less than what was expected. This study aims to view the abnormal returns surrounding a profit warning on the returns within a 10-day scope of the release of a profit warning. The theories and hypotheses this study relies on are the agency theory, the efficient market hypothesis and the signalling theory. An event study methodology was used, with abnormal returns being derived as a regression analysis result of the stock versus the market returns. The result being that the abnormal return is significantly different on the trading day after the profit warning and two days after the profit warning.

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CHAPTER 1: INTRODUCTION

1.1: BACKGROUND INFORMATION

An investor is a person who puts their money into a product or asset with the aim of achieving a financial profit related to the events that happen in relation to this product or asset.

In this study, the focus area is on stock returns, meaning that the investors being referred to are those who invest in a company's stock in order to achieve a profit when the stock prices rise.

When an investor invests in a company, it is not always the case that they will be involved in the day to day running of the company, this duty is often tasked to the company managers, whose role is to ensure that the investor gets a return on their equity.

In the event that costs related to voluntary disclosure are fixed, the level of disclosure by the firms will be positively related to these costs. (Verrecchia, 1983) Therefore, the managers of firms will disclose their news as long as it is above a certain thresholde. (Skinner, 1994)

It is not possible for investors who are unimformed to distinguish whether a firm has information that is either more or less than the threshold, thus they cannot infer the existence of bad news from the lack of any disclosure by the firms. Investors cannot be certain as to whether managers of the firm are disclosing all information fully or whether they are disclosing partial information, therefore, silence cannot be direct indicator of bad news. Both viewpoints imply that managers disclose only news that is relatively good, although news that is perceived to be bad is disclosed when disclosure costs are below a certain threshhold or in the event of a sufficiently high information assymnetry between managers and investors. (Skinner, 1994)

To ensure there is little information asymnetry between the investors and the company managers in Kenya, the Capital Markets Authority, through legal notice 60, 3rd May 2002, gave a set of obligations, one of them being in relation to profit warnings.

"*(1) An issuer shall disclose all material information and make a public announcement of: ... (f) any profit warning, where there is a material discrepancy between the projected earnings for the current financial year and the level of earnings in the previous financial year.*"

A material discrepancy is one where there is a greater than 25% difference between what was previously expected and what is currently expected.

This ensures that if the equity of a company is overevalued by a significant amount, the managers have the duty to disclose. Thus, the profit warning helps with preventing managers from being able to take advantage of the information asymnetry to give an illusion of growth to investors. (Francoeur & Martinez, 2008)

As a negative profit warning is viewed negatively by investors, once a profit warning is released, the stock price is expected to drop. This is because the declaration that profits will not be as expected introduces an element of risk to the company, which requires the return on investment to be higher. This can also be explained through the Efficient Market Hypothesis, which states that in an efficient market, the information is reflected in the prices of the stock. So, because the information is negative information on future profits, the stock price will also go down, reflecting this negative information, as it reflects a companies possibly adverse.

The purpose of managers disclosing both good and bad non proprietary information, is to prevent the price of their firms' securities from dropping heavily. In the real world, it is not expected that the price of the firms' securities would drastically drop due to a manager failing to disclose any non proprietary information they have. (Dye, 1985)

The Signalling Theory is yet another theory that could describe the response by the market to the profit warning, similar to the Dividend Signalling Theory, which claims that stock prices tend to rise when a company announces that dividends are about to rise, and claims that stock prices tend to fall when a company announces that dividends are about to fall. The same reasoning can be applied to profit warnings, where stock prices are expected to rise when a company announces that expected profits are about to rise, and stock prices are expected to fall when a company announces that expected profits are about to fall.

1.1.1 PROFIT WARNINGS

A profit warning is a statement by a company indicating that the company's profits are unlikely to meet the previously expected levels of the profits.

According to Fayez A. Elayan and Kuntara Pukthuanthong, profit warnings are an announcement by firms which disclose the expectation of the managers that the actual earnings will be significantly less than the estimated earnings. (Elayan & Pukthuanthong, 2010) Fayez A. Elayan and Kuntara Pukthuanthong also show that the reaction to such announcements is highly negative, as is expected from the market upon hearing news that is perceived to be bad.

Previous research on why profit warnings are issued by companies despite the negative effect on the stock shows that they are released for the following reasons; first being the legal implications of not issuing a profit warning, as stockholders may go ahead to sue the managers of a company due to large and surprising declines in the stock price on the day of the earnings announcement. These managers can then be held personally liable and their activities may end up being disrupted and their focus diverted as they must deal with both running the company and handling the lawsuit. (Skinner, 1994)

The second reason as to why they release the profit warning would be released is because the managers may face reputational costs if it is discovered that they are holding back sensitive negative information. If the managers fail to disclose this information in a timely manner, stockholders, money managers, security analysts and other investors may impose costs, as a result of their far from candid behaviour regarding the company's potential earnings. For example, it is unlikely that money managers will continue holding the company stock or for analysts to continue following the company stock. (Skinner, 1994) This will influence the decision of managers to release a profit warning depending on whether the costs of releasing this negative information outweighs the reputation cost or not.

There are various channels in which a profit warning can be communicated by management, for example a statement on their website, public announcements via the news or even a conference call with analysts. (Kasznik & Lev, 1995)

The higher the deviation from expected earnings, the more the market reacts to it. (Kasznik & Lev, 1995) Releasing a profit warning also aims to reduce the amount by which the stock price drops on the earnings announcement day. When comparing the combined market reaction to the earnings of a company that issued a profit warning and that which did not, the reactions to the latter are significantly more negative. (Kasznik & Lev, 1995)

In Kenya, it is mandatory for companies to release profit warnings in the event of a significant (25%) difference between the profit that is expected and the profit that is likely to actualise. This is according to the legal notice 60, 3rd May 2002, issued by the Capital Markets Authority. Companies which breach these profit warning rules are liable for punishment. An example of such a company that has been punished for breaching these regulations is National Bank, which was fined by the Capital Markets Authority for as they did not issue a profit warning before announcment of a loss that came as a surprise. (Herbling, 2016)

1.2: PROBLEM STATEMENT

It is important for investors to make informed decisions before making their investment. One of these informed decisions is knowledge of the best action to take in the event there is a profit warning released by a company they have either invested in or are interested in investing in.

This study aims to help provide insight on the trend which Kenyan stock prices follow upon the release of a profit warning, thus helps establish any effects of profit warnings on the returns to an investor in the Kenyan market, and could be useful when seeking for the optimal time to invest or sell stock in a company when a profit warning is issued by a publicly traded company in Kenya.

1.3: RESEARCH OBJECTIVES

To determine the effect of profit warning announcements on the returns of companies in the Kenyan market.

The study aims to determine which days surrounding a profit warning have a significant change in abnormal returns as a result of the profit warning

1.4: RESEARCH QUESTIONS

1. What is the effect of profit warning announcements on the returns of companies in the Kenyan market?
2. Is there evidence of insider trading in the Kenyan stock market?
3. Is the effect of profits warnings on Kenyan companies consistent with literature/ theories?

1.5: SIGNIFICANCE OF RESEARCH

This research is of interest to the management of listed companies, who are in charge of the performance of the company and ensuring the stock price is improving in order to meet investor return requirements.

Management of companies listed in the Nairobi Stock Exchange will be interested in the study as it will guide them on what to expect if they were to issue a profit warning and helps them plan accordingly to determine the best strategy to take in the event they are to release a profit warning.

Investors interested in the Kenyan market will also be able to use this information as a guide to the best investment decision if a company has just made a profit warning, or their company has made a profit warning. It will help them make decision with an informed perspective.

Intermediaries such as stock brokers can use this information when aiding clients to ensure that they are able to effectively serve their clients when it comes to dealing with companies which have issued profit warnings.

Regulators are interested in the level of compliance with the regulations, one of these regulations being the requirement to release profit warnings. Regulators will be interested in finding the effect of adherence to these regulations and their effect on the market. This will help them when it comes to enforcing of the regulations and with making changes to the regulatory requirements.

Researchers will be able to use the findings of this paper to further knowledge about the relationship between profit warnings and the stock price of a company.

CHAPTER 2: LITERATURE REVIEW

2.1: THEORETICAL FRAMEWORK

2.1.1: EFFICIENT MARKET HYPOTHESIS (EMH)

This theory claims that information is the key metric behind security prices, if markets are working efficiently, then all information regarding the stock price will be already integrated in the current stock price. This means that the only thing that would cause the stock price of a company to fluctuate would be the market's reaction to new information.

This new information must be unpredictable, if it could have been predicted, then the prediction would have already been integrated in the current stock price (Bodie, Kane, & Marcus, 2002).

An efficient market is a market in which the prices of its securities are capable of quickly changing to adjust to information. (Reilly & Brown, 2003).

Competition among investors is the source of efficiency in markets, this is because of the following assumption:

For investors to be incentivised to trade to the point where all past, public and private information is reflected in security prices, it is necessary that both costs related to obtaining this information and costs related to trading are zero. (Elton & Gruber, 2001). As the costs are above zero, security prices reflect past, public and private information to the point where marginal costs related to obtaining information and trading are not above the marginal benefit related to the use of this information.

The above consideration is considered when setting the sufficient conditions for capital market efficiency, which is the assumption that no transaction costs exist while trading securities, that all market participants are able to acquire all information in a costless manner and that each participant has the same view regarding the implication of acquired information on the distribution of future prices and the current price for each security. (Fama E. F., 1970)

Market efficiency may be contingent on the above conditions being met, but they are not entirely descriptive of real-world markets

According to Fama (Fama E. , 1965), there are three different forms of market efficiency:

Weak form EMH, under the weak form EMH, the prices reflect only information related to the history of the security itself. These are the historical sequence of prices, rates of return, trading volume and other market generated data. It implies that trend analysis is not useful.

Semi strong form EMH, under the semi strong form EMH, the prices fully reflect all past information and reflects information that is available to the public.

Strong form EMH, under this, prices reflect all past information, information that is available to the public and also information that is kept private, this means that there are no investors capable of gaining sole access to information that would be helpful in the estimation of future prices, so it eliminates the possibility of there being information asymmetry regarding prices between investors.

2.1.2: AGENCY THEORY

An agency relationship is one in which there are two parties, one of these parties being referred to as the principal while the other party is referred to as an agent. Agents act on behalf of the principal and represents the principal in transactions with a third party. Decision making is also often delegated to the agents by the principals. (Jensen & Meckling, 1976)

Due to the fact that the principal has delegated decision making authorities to the agents, there may be differences in opinions, priorities and even risk tolerance between the agent and the principal. This is known as the principal-agent problem. This arises when the agent acts in a way that is not in the best interests of the principal, and the actions carried out are more aligned to their own best interests.

In the event that the agent and the principle both prioritise maximisation of utility, there is not much doubt that it is possible for the agent to act in a way that is best for themselves and not for the principal. (Jensen & Meckling, 1976)

To minimise this problem, firms must be willing to incur agency costs in order to monitor the agents.

For the principal to minimise the chances divergence from their interest, the principle may establish appropriate incentives for the agent, they may also monitor the activities of the agent, though this incurs monitoring costs on them. The principal could also pay an agent to expend resources (bonding costs), this is to ensure that the agent does not commit acts that would directly harm the principal or to ensure compensation in the event the agent does commit said acts. (Jensen & Meckling, 1976)

Unfortunately, even with monitoring of the agent by the principle being optimised, there will still be situations in which the agent's decisions will not be entirely aligned with the welfare of the principal's. (Edward, 1987) Agency costs are made up of two parts, the monetary equivalent resulting from this misalignment of decisions and the costs incurred due to monitoring the agent.

Despite the possibility of the agent acting in a way that conflicts with the principal's expectations, and the requirement of having to incur agency costs to monitor these agents, there are still reasons why a principal-agent relationship exists within a firm.

For example, the shareholders may not have the necessary knowledge to run the organization, thus they need to delegate the running of the organization to specialised personnel, or the shareholders may be very many and spread geographically in a way that it would be inconvenient for the shareholders to actively manage the firm.

Thus, putting this theory into the financial aspect, managers are the agents of the shareholders, who can be considered the principles. Meaning that the managers are meant to act in ways that align with the interests of the shareholders, which is often providing them with adequate returns on equity. Managers may use this information asymmetry to act in ways that may not be in the best interests of investors but would be in the best interests of the firm or themselves.

The managers may first be tempted to use this asymmetry to their own advantage by using it to provide an illusion that there is growth in the company, at first, they may start by manipulating financial information so as to meet expectations of investors, analysts and the market in general, manipulations of the information do not generate value for the company though, so when the managers have run out of all available avenues for this creative accounting, the next step they may take may be to commit fraud and deceive the market. If this fraud were to be exposed, there is a high likelihood of a scandal that would destroy the company and thus cause loss of investor money. (Francoeur & Martinez, 2008)

2.1.3: SIGNALLING THEORY

Signalling theory is useful for describing behaviour where different parties, which could be either an organization or an individual, are capable of gaining access to the same information. The first party, being the sender, can decide on which methods to use when disclosing this information, who they wish to disclose it to and even whether they want to disclose it in the first place. The other parties, who are receivers of the information, decide on how they wish to interpret the information that was disclosed to them. (Connelly, Certo, Ireland, & Reutzel, 2011).

When it comes to a companies' financial behaviour, it is assumed that insiders are able to access more information and thus are privy to information on firm prospects as compared to outsiders, firm managers then convey this information to the outsiders through their financial policy decisions. (Edward, 1987)

Profit warnings are signals to the market that the profits will not be at the previously expected value. This theory is relevant as the study is aiming to see the effect of a signal between two parties, the signal being the profit warning by the firms and the interpretation being the market response to the symbols.

2.2: EMPIRICAL LITERATURE REVIEW

Research previously done by Tumurkhuu and Wong, they studied profit warnings and stock returns and aimed to find the relationship between the two. This was done in the European market and covered a sample of 87 firms in which profit warnings were released between 2008 and 2010. (Tumurkhuu & Wong, 2010)

Research previously done by Piccoli and Chaudhury, their study was on the investor sentiment and its effect on overreaction to extreme market events. Their study aimed to discover how investor psychology drives each stock price reaction to large movements, using investor sentiment indexes. (Piccoli & Chaudhury, 2017)

Jackson and Madura (2003) reported a strong negative reaction, starting five days to the announcement with the reaction complete within five days after the warning .While there was no overreaction to the announcement, small firms reacted more negatively in the announcement and post-announcement periods while in the pre-announcement period, more negative reactions were observed in large firms.

Research done by Spohr (2014) shows various variables which can be used as explanatory variables for the response by the market related to profit warnings with. (Spohr, 2014) The variables used in his study were the consensus analyst recommendation a day before the profit warning, number of previous profit warnings, if this shock event is also expected to affect results of the next quarter, market capitalization, earnings per share and total liabilities of the company.

Gathoga (2014) covered the effects of profit warnings on firms in East Africa. In his study, 73.5% of profit warnings resulted in a decrease in returns due to a negative interpretation, and that the effects of profit warnings on abnormal returns, cumulative abnormal returns and standardized cumulative abnormal returns depend on the company issuing the announcement.

CHAPTER 3: RESEARCH METHODOLOGY

3.1: INTRODUCTION

This section gives insight to the methods and models used in the study, the samples used, the data collection method and the analysis models

3.2: RESEARCH DESIGN

This study uses the event study methodology. This statistical method is used to assess how a profit warning impacts the returns of each company. The assumption in this methodology is that where there is an efficient market, the prices in this market will change immediately according to any new or sudden information. (MacKinlay, 1997)

3.3: SAMPLE

The target population comprises firms that released a profit warning between 1st January 2015 to 31st August 2019.

3.4: DATA COLLECTION AND METHODS

This study relied on secondary data on stock prices, collected from data vendors along with company, CMA and media announcements on profit warnings.

3.5: ESTIMATION MODEL

The event study methodology is used to measure the market response to profit warnings.

Returns are calculated as:

$$\frac{(P_{t+1} - P_t)}{P_t}$$

Where:

P_t is the price of the share at time t.

Abnormal returns are then calculated as:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i(R_{mt}))$$

Where:

AR_{it} = Abnormal return for firm i on day t.

R_{mt} = market return on day t, obtained using the Nairobi All-Shares index.

α and β are obtained through an Ordinary Least Squares Regression for a 200-day trading window that ends 20 days before the profit warnings for every firm in the study. They are then used to calculate the estimated return of each individual firms.

The abnormal returns are calculated by subtracting the estimated firm's return for day t from the actual return on day t.

The mean abnormal return over the is calculated using the average of the abnormal returns for companies in the sample. Five days were used as the event window of this study.

The significance of the abnormal return deviations is measured with a difference of means test.

CHAPTER 4: RESULTS AND DISCUSSIONS

4.1: MODEL RESULTS

DAYS	MEAN ABNORMAL RETURNS	T-STATISTIC
5	0.016410156	0.61331304
4	0.014132559	0.535160119
3	-0.016972766	0.532180765
2	0.021719341	0.795491206
1	0.01356615	0.515724483
DAY OF WARNING	0.025779784	0.934820269
1	-0.076699758	-2.58163886339542***
2	-0.043537082	-1.44370249503437**
3	0.01440141	0.544385401
4	0.015390283	0.578317354
5	-0.000288763	-0.040310251

FIGURE 1: RESULTS OF THE STUDY

*** means that the value was significant at a 5% confidence interval

** means that the value was significant at a 10% confidence interval

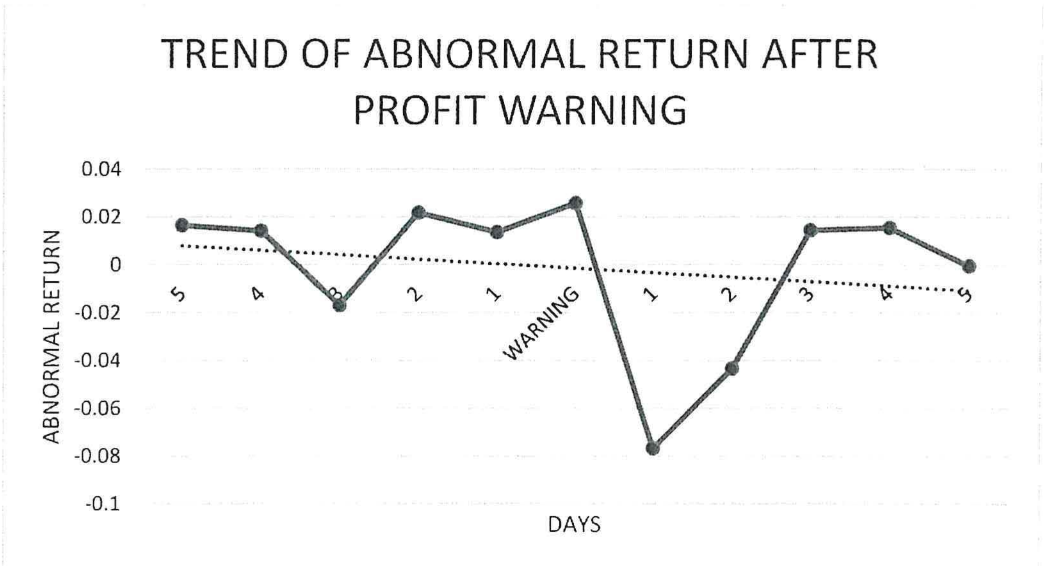

FIGURE 2: GRAPH OF THE TREND OF ABNORMAL RETURNS WITHIN AN ELEVEN-DAY CYCLE.

4.2: RESULT INTERPRETATION

Average abnormal returns were calculated based on the event window which was five days before and five days after the profit warning.

The above table shows that as expected, the reaction of the share price to a profit warning is significantly negative, a high drop in the mean abnormal return of the companies on the day of the profit warning.

The absence of a drop in the abnormal returns just before the profit warning indicates that there was little to no insider trading occurring during the event window as the average abnormal returns would have dropped the day before had there been presence of insider trading.

After the first day after the profit warning, we can see that the abnormal returns begin rising again towards the normal expected abnormal returns, this sharp drop and return is due to the immediate overreaction of the market following the profit warning, before it then goes back to the expected abnormal return trend three days later.

These results show that there is no evidence of insider trading around these profit warnings, as there is no significantly different average abnormal return for the days before the profit warning, thus despite the negative average abnormal return three days before the warning, there is no significant deviation from the expected return.

The trend line of the abnormal returns is falling, showing that the abnormal returns are steadily reducing, showing that the overall effect of the profit warning on the stock returns is negative and causes less returns over time.

Due to the fact that the returns of the stocks drop significantly due to the profit warning announcement, it can be concluded that the Kenyan market is not a strong efficient market, and is likely to be either weakly efficient or semi-strong. This is because, had the market been a strongly efficient market, the returns would not have significantly changed due to the announcement and it would have already been factored into the stock prices.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1: CONCLUSION

From the study, it is inferred that profit warnings have a negative effect on the returns of the companies that announced them, with this effect being significant on the day after the profit warning as well as two days after the warning.

This is in accordance with the signalling theory where the market perceives news and reacts to it accordingly, this is through a decrease in stock price as the market perceives the profit warning as a negative signal, as happens under efficient market conditions.

5.2: RECOMMENDATIONS

It is recommended that regulators ensure compliance to regulations regarding the issuance of profit warnings. This is because firms may choose to avoid making disclosures out of fear of the negative effects of issuing a profit warning.

Regulators should also investigate the returns on stocks surrounding the profit warnings, especially on the days before the profit warnings, as there are some firms which show large negative abnormal returns on days before the profit warnings which may indicate the possibility of insider trading for these firms.

Investors and intermediaries are also recommended to pay attention to the issuance of profit warnings as they influence the returns and expectations of a company's future earnings.

5.3: LIMITATIONS OF THE STUDY

Not every company that issued a profit warning was taken into consideration in the calculations. This is due to unavailability of data from websites regarding some firms before 2016 and firms with very little data regarding their share prices.

There is no direct source of information which shows every single firm that has released a profit warning and thus I was forced to rely on data obtained from media articles and websites.

Research can be done on other factors that may affect the effect of profit warnings on the returns of the company. The size of the company issuing the profit warning would likely have an effect on the reaction of the investors who are interested in investing in the company or have already invested in the company. Company size was not used as a factor in determining the effect. Investors may also place their confidence in the industry as well, and not just the companies, so the industry in which the companies operate in would also be a factor that affects the effect of the profit warnings on the abnormal returns. The industry was not factored into the calculations determining the effect on the profit warnings. The company's leverage also affects the effect on the stock returns, with higher leveraged firms facing a higher negative effect on the stock returns. Leverage was not used as a factor when considering the effects. Finally, the number of profit warnings a company has previously released was not considered as a factor.

5.4: AREAS FOR FUTURE STUDY

A study of the microeconomic and macroeconomic factors that affected the companies as they released profit warnings can be done to determine the behaviour of the abnormal returns around profit warning days in different economic environments. This would be very important, especially when determining the effects around political events in Kenya which was stated to be the cause of the profit warning by most firms in 2017 and 2018.

Another possible study could be a focus on the abnormal returns around a profit warning not just in Kenya, but in East Africa or even Africa as a whole.

LIST OF REFERENCES

Bodie, Z., Kane, A., & Marcus, A. (2002). *Investments.* New Delhi: Tata/McGraw-Hill Publishing Company.

Connelly, B., Certo, T., Ireland, D., & Reutzel, C. (2011). Signaling Theory: A Review and Assessment. *Journal of Management*, 39-67.

Dye, R. A. (1985). Disclosure of Nonproprietary Information. *Journal of Accounting Research*, 123-145.

Edward, J. (1987). RECENT DEVELOPMENTS IN THE THEORY OF CORPORATE FINANCE. *Oxford Review of Economic Policy*, 1-12.

Elayan, F. A., & Pukthuanthong, K. (2010). Why warn? The impact of profit warnings on shareholder's equity. *Investment Management and Financial Innovations*, 164-176.

Elton, E., & Gruber, M. J. (2001). *Modern Portfolio Theory and Investment Analysis* (6th ed.). Singapore: John Wiley and Sons.

Fama, E. (1965). Random walks in the Stock Market. *Financial Anlayst Journal*, 55-60.

Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 383-417.

Francoeur, C., & Martinez, I. (2008). Governance and the Decision to Issue a Profit Warning. *Canadian Journal of Administrative Sciences*, 317-333.

Herbling, D. (2016, April 11). *CMA punishes NBK for breach of profit alert rules.* Retrieved from Business Daily: https://www.businessdailyafrica.com/economy/CMA-punishes-NBK-for-breach-of-profit-alert-rules/3946234-3155004-9l71y1/index.html

Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior. *Journal of Financial Economics*, 305-360.

Kasznik, R., & Lev, B. (1995). To Warn or Not to Warn: Management Disclosures in the Face. *The Accounting Review*, 113-134.

MacKinlay, C. (1997). Event Studies in Economics and Finance. *Journal of Economic Literature*, 13-39.

Muth, J. F. (1961). Rational Expectations and the Theory of Price Movements. *Econometrica*, 315-335.

Piccoli, P., & Chaudhury, M. (2017). Overreaction to extreme market events and investor sentiment. *Applied Economics Letters*.

Reilly, F., & Brown, K. (2003). *Investments* (6th ed.). Maon, Ohio: South Western.

Skinner, D. J. (1994). Why Firms Voluntarily Disclose Bad News. *Journal of Accounting Research, Vol. 32*, 38-60.

Spohr, J. (2014). The share is down 8% after the profit warning, is it time to buy? *Applied Economics Letters*, 556-559.

Tumurkhuu, T., & Wong, X. (2010). The Relationship between the Profit Warning and Stock Returns: Empirical Evidence in EU Markets. Retrieved from http://www.diva-portal.org/smash/get/diva2:394405/FULLTEXT01.pdf

Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics, Vol. 5*(Issue 1), 179-194.

APPENDIX 1: COMPANIES COVERED DURING THE STUDY

Standard Chartered

Mumias Sugar Company Limited

Sameer Africa Limited

TPS Serena

Uchumi Supermarkets

East Africa Cables

Express Limited

Sasini Limited

Cooperative Insurance Company of Kenya Limited

Williamson Tea Kenya

Bamburi Cement

Flame Tree Group

BOC Kenya Limited

Britam Holdings Limited

East Africa Portland Cement

Housing Finance Company of Kenya

Kenya Power and Lighting Company

National Bank of Kenya

Carbacid Investments

Crown Paints Kenya

Kenya Reinsurance Corporation