THE TIMING EFFECT OF EARNINGS ANNOUNCEMENT ON STOCK RETURNS OF COMPANIES QUOTED AT THE NAIROBI STOCK EXCHANGE.

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DECLARATION

This project is my Original work and has not been presented for a degree in any other university.

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This management paper has been submitted for examination with my approval as the University supervisor.

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Dedicated to my late father John Oluoch, my mother Milkah Atieno and my wife Roselyn.

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ABSTRACT

The aim of this study was to determines whether there is any systematic relationship between the timing of earnings announcement (whether late or early) and the kind of earnings news (good or bad) and further to evaluate the effects of reporting lag on stock returns of companies listed in the Nairobi Stock Exchange (NSE).

The study covered five years from 1997 to 2001. Secondary data obtained from the NSE secretariat was used in the research. The previous year's earnings and moving average model were used to estimate earnings and the earnings announcement dates every year. This was compared with the actual earnings and announcement dates every year to classify the companies as late reporting or early reporting and as reporting good news or bad news. Chi square test was used to test if there is a significant relationship between earnings and the kind of news reported. To test if a lag in reporting have a negative effect on the stock returns, the market model was used to estimate the expected stock returns during the period surrounding the earnings announcement dates. The cumulative residual returns of late reporting and early reporting firms were compared using F test and Man Whitney U test.

The results of the study shows that in Kenya, contrary to the findings of other researches done in other capital markets, there is no systematic relationship between reporting time and the earnings news and a delay in reporting does not have any significant effect on the stock returns of companies quoted.

CHAPTER ONE.

1.0 INTRODUCTION AND BACKGROUND.

Investors assign great importance to the aggregate market value of the equity of a firm. The market value depends heavily on per unit price of the shares. Consequently investors and other capital market participants pay much attention to the share prices. The prices of shares in a capital market depend on the availability of information (about the company) among other factors. In efficient capital markets the prices of securities adjust rapidly to the entry of new information in the market. Thus security prices reflect fully all the available information about the securities traded.

Information on various companies can be obtained from various sources like the more prompt media. However, the most common, detailed and reliable information is usually contained in the annual reports and accounts of a company. The reports and accounts are prepared following a prescribed format as part of legal requirement, verified by an independent auditor and circulated to all the shareholders of the company. The information is also made available to the others through the press and capital markets.

For information to bear any impact in decision making it must be obtained on time. Timeliness is therefore regarded as a basic qualitative characteristic of good information. The annual reports and accounts give a summary of the activities of a company and the earnings from the activities undertaken during a year. In countries where quarterly reports are a must rather than an exception the annual reports are merely aggregation of

the quarterly reports published during the year. Hence the reports do not contain much news as most of its content has been preempted by the quarterly reports. However in the emerging markets where quarterly reports are exception rather than a rule only a few companies publish them. Where this happens investors rely on the annual reports as the major source of information.

1.2 DEFINITION OF TIMELINESS

Investors and other participants in the capital market expect public limited companies to announce their earnings immediately after their financial year ends. Professional and regulatory bodies also put an upper limit on the period taken to release the earnings report. In Kenya for example companies are supposed to report three months after the end of each accounting period. However, various companies take different times to report their earnings with some taking longer periods.

The timeliness of earnings announcement can be defined in regard to three perspectives in reporting that is (1) the expected date of reporting, (2) the reporting delay and (3) the frequency of reporting.

Expected date of reporting

Investors can use a series of past announcements to forecast a reporting date in a year. The earnings announcement is therefore considered early if made before the estimated date and late if made after the estimated date. This is the method commonly adopted in studies examining the relationship between securities prices reaction to information

release and the timeliness of the release. This definition of timeliness will be adopted in the current study.

Reporting Delay

Timeliness can also be considered as the duration between the balance sheet date and the date of releasing publicly the annual reports and accounts. A report is considered timely if released immediately after the balance sheet date. Ondigo (1995) found out that in Kenya, quoted companies took between two to nine months to release their annual reports. In most countries the government and or the regulatory bodies specify the time interval within which public limited companies must announce their reports and accounts. Dyer and Mc Hugh (1975) Courtis (1976) and Ashton, Willingham and Elliot (1987) revealed that the main reporting interval of quoted companies in Australia, New Zealand and USA were 118,128 and 62 days respectively.

Frequency of reporting

Timeliness in reporting can also be taken as the number of times (how frequent) a company makes public its reports and accounts. In Kenya most companies announce their reports and accounts once in a year. Interim reports and accounts are only common among banks as a fulfillment of the requirement of banking act cap 14. The Nairobi Stock Exchange also requires all listed companies to prepare and publish their interim results but the rule is never applied strictly. In the developed markets e.g. Europe and USA, interim results are mandatory. The Security Exchange Committee (SEC) of USA and the

New York Stock Exchange (NYSE) requires all member companies to file quarterly reports.

The annual reports should be released as soon as possible to the public. This according to Kross (1982) prevents earnings information from leaking to a few selected individuals or groups before public announcement. Fama and Laffer (1971) argued that a reporting delay might be prompted by concern of management for its shareholders. The management may try to delay the release of annual reports if the report is perceived to be unfavorable. This suggests that firms with high profitability (good news) have a tendency of reporting early than firms with low or negative profits (bad news). This has been confirmed by researches that have been done in various capital markets e.g. NYSE. In Kenya Lishenga (1989) also confirmed the hypothesis. He gave the following reasons as possible cause of delays by poorly performing firms.

i. The desire of managers to delay the effects of reactions by the shareholders to the firm and its shares prices.

ii. The wish to continue and complete current negotiations and contracts in the best possible light.

iii. The time consuming negotiations between auditors and management in an attempt to improve the results.

Delay in reporting is therefore news by itself. The delay can be interpreted by investors as a "silent signal" by the management to the shareholders to quickly dispose of their shares (at favorable prices) before the share prices fall down due to announcement of negative

results (bad news) and repurchase them later at lower prices making abnormal returns. This reaction due to delay may have a general effect on the stock returns during the period preceding the earnings announcement date.

Morse (1978) reported that the trading prior to a public announcement date might occur because of differences in belief about the probability of the different signals being emitted by the public announcement. These differences in belief may be caused by asymmetric distribution of the information before the public announcement. Price changes prior to the public announcement may therefore indicate that the signal or some clue about the announcement has been received by a subset of the investors.

Davis (1968), in his study of the adjustments of the stock prices of automobile companies to the announcement of 10 days sales concluded that the adjustment tended to be concentrated in two days prior to the date of announcement indicating that the effect of earnings announcement starts before the announcement date.

Not all delays are however intentional. There are some instances where the delay is caused by impediments in the flow of information within the organizations. The top management may be forced to report late because they are faced with delays by their own divisional managers. However, this can be attributed to poor performance, which can also result to poor profits. Hence the conclusion is still the same: Bad news is released later than good news (Kross 1981).

1.3 STOCK RETURNS

When investors buy shares they forgo the possibility of consuming a portion of their current wealth on expectation that the return on the shares will be sufficient to make the venture worthwhile. The decision to invest therefore involves assessing the attractiveness of alternative investment possibilities by calculating and comparing their potential risks and returns.

The traditional investment analysis when applied to securities emphasizes the projection of prices and dividends. The return on a share comprises of a capital gain resulting from changes in share prices and the dividend received by the shareholder. Pettit (1988) defines stock returns as the benefits to an investor in a common unit of measure over the life of holding period of the security.

Penman (1987) cited that earnings information may cause stock returns seasonality. He also stated that unfavorable earnings information is released late normally after trading closes on Friday. If investors become aware of this deliberate reporting delay by bad news firms, there will be rapid adjustments in stock prices during the period between the expected date of reporting and the actual announcement date. In efficient markets, the stock returns will be depressed during this period as the news of delay hits the market. The responsiveness of the emerging markets is rather slow.

1.4 STATEMENT OF THE PROBLEM

Investors need accounting information in order to analyze the performance of a company. The information is used to adjust their expectations (forecast). In efficient capital markets investors respond promptly and efficiently to published data. The first two forms of efficiency that is the weak form and the semi strong form, is also concerned with the efficiency of the market in using information. Thus a delay in releasing the information increases the uncertainty associated with investors' decisions. Some investors may even postpone their transactions to wait for the earnings announcement.

The timing of earnings announcement *per se* can convey important information to investors. Specifically if managers announce good earnings news early and delay earnings report that contain bad news then the testable implication for security returns are-:

i. Firms that do not announce early signals lack of good news and thus earn negative average abnormal returns around their expected announcement dates.

ii. Firms that announce early signals good news and thus earn positive average abnormal returns at the time of their announcements.

Numerous researches have already been done to test the hypothesis that bad earnings news is delayed and the effect of the delay on stock returns. The results confirm the theory. However this hypothesis has not been tested and documented in the Kenyan capital market. The findings could be different given that various capital markets have some unique characteristics and their participants also differ. Ondigo (1995) found that in

a sample of 18 blue chip companies, the reporting time was between two to nine months with most companies reporting after the third month from the balance sheet date. This reporting lag could be worse if all the quoted companies were to be considered. It is therefore important to investigate the factors necessitating the delay and if the delay bears any negative effect on stock returns during the announcement period.

The current research seeks to investigate if this delay could be attributed to the kind of news reported by a company hence perceived as a deliberate act by managers to delay bad news from reaching the public. The research will further seek to analyze the effects of the reporting lag on the share prices during the period preceding the earnings announcement date.

1.5 OBJECTIVES OF THE STUDY

The research intends to determine if: -

i. Poor performance (bad news) as measured by profits is announced later than good performance (good news).

ii. The market reacts negatively to the late announcement of earnings.

Hypothesis one:

H_0: Firms with bad earnings news do not report later than firms with good earnings news.

H_1: Firms with bad earnings news report later than firms with good earnings news.

Hypothesis two.

H_0: Late reporting firms do not have lower abnormal returns than early reporting firms in the period surrounding earnings announcement date irrespective of the type of news.

H_1: Late reporting firms have lower abnormal returns in the period surrounding earnings announcement date irrespective of the kind of news announced.

1.6 IMPORTANEC OF THE STUDY

i. To corporate managers

The fundamental objective of financial management decision is the maximization of shareholders wealth. This simply refers to the maximization of the market value of a company's shares. The capital market if efficient values securities fairly. Since movement in share prices in the capital market is associated with information flow, managers should refrain from practices that may send negative signal about the company. If the current research finds any association between delay in reporting and the kind of earnings news then the research will act as a warning to the managers to avoid unnecessary delay in reporting so as to maintain high share prices.

ii. To investors

Most investors in the capital market intends to beat the market by buying undervalued securities and selling them later when the market has correctly priced them or selling over valued securities and buying them later when the price is down hence making abnormal profits. This can only happen if the investors move fast to act on signals sent by the corporations and not received by other market participants. The current research will provide evidence on whether a reporting delay can be interpreted as bad earnings news, which is yet to be publicly announced.

iii. To Stock brokers.

The research will investigate and document the behavior of capital markets market to delay in earnings announcements. This will enable stockbrokers to predict movements in shares during the period preceding earnings announcement date hence make high returns or avoid heavy losses. It will also provide evidence on whether brokers can make high returns by short selling of shares of companies that delay in reporting.

iv. Regulatory authorities.

The regulatory authorities are concerned with ensuring that investors and the general public are provided with timely information about public limited companies. The current research intends to establish if less profitable companies delay the earnings announcement hence need for more stringent rules regarding reporting time.

v. The academicians

Academicians and researchers will also use the research as an addition to their wealth of knowledge and a foundation for further research in the area of study.

CHAPTER TWO

2.0 LITERATURE REVIEW.

2.1 STOCK PRICES BEHAVIOUR

Investors generally attempt to beat the market by identifying undervalued shares and buying them before their prices rise. Similarly they also look for overvalued shares in order to sell them before their prices fall. This implies that an investor's judgment of the true worth of the shares may be different with the stock market judgment as seen in the current price of the shares.

There are three schools of thought with divergent views on security value and the behavior of security prices according to Fisher and Jordan (1979). These are (1) Fundamental analysis (2) Technical analysis and (3) Random walk theory.

Fundamental analysis

The fundamental analysts argue that stock price is a function of the expected earnings and capitalization rates corresponding to future time periods. Hence, in order to get the price of a share we need to discount the income streams from the security. Price changes occur due to changes in expectation and one major cause of change in expectation is arrival of new information.

To the fundamental analyst, earnings, dividends, asset values and the (credibility of) management are the basic variables used in determining the underlying value of a security. The theoretical (intrinsic) value of the share is compared with the current market price of the share and if the shares are worth more than the current market prices the shares are bought if not they are sold.

Technical analysis

Technical analysts examines past share price movement with an intention of discovering particular patterns of share price movements, which appear to recur. Once patterns have been identified, the current share price movements are observed to determine if established patterns can be cited. This enables them to predict future share prices where a pattern has been cited.

Technical analysis is based on the assumption that the underlying value of stock is dependent on the supply and demand hence have little relationship with earnings and dividends as argued by a fundamentalist. The demand and supply of shares are caused by rational and irrational factors e.g. information, moods, opinions and guesses. When these factors intermix, the result is a price movement that follows a pattern that persists for appreciable length of time.

Little empirical work has been conducted on the area of the technical analysis (Fisher & Jordan, 1979) and the results of the tests that have been done so far are inconsistent and

incondusive. However most of the tests have yielded results that are not reassuring to the technical analyst.

Random Walk Theory

The random walk theory argues that the share price movements are independent of one another and unrelated. This happens in an efficient market where the current prices of securities represent unbiased estimate of their intrinsic values. The random walk theory holds that the prices move in a random manner hence it is not possible to predict future prices. The price movement, whether up or down, occurs as a result of new information and since investors cannot predict the kind of new information (whether good or bad), it is not possible to predict future price movement.

The random walk theory clearly conflicts with the technical analysis. The theory says that previous price changes or changes in return are useless in predicting future prices. This implies that the work of a technical analysis is useless. The random walk is closely related to the efficient market hypothesis. According to Fisher and Jordan (1979), the random walk theory is a special case of a more general efficient market hypothesis.

2.2 THE EFFICIENT MARKETS HYPOTHESIS (EMH)

The theory of market efficiency and stock prices behavior is inseparable. Lumby (1994) defines an efficient market as a market where prices of company's shares (or other financial securities) rapidly and correctly reflect all relevant information as it becomes

available. No undervalued or overvalued securities exist in such a market hence the share prices can be relied upon to correctly reflect the true economic worth of the shares. Jensen (1978) points out that a market is efficient with respect to information if it is impossible to make economic profits by trading on the basis of that information.

The assumptions underlying the efficient capital market are given by Reilly and Brown (2000) as: -

i. A large number of competing profit maximizing participants to analyze and value securities, each independently of the others.

ii. New information regarding securities comes to the market in a random fashion i.e. the timing of announcement is generally independent of others.

iii. Competing investors attempt to adjust security prices rapidly to reflect the effect of new information.

The three forms of market efficiency are (1) Weak form of efficiency, (2) Semi strong form of efficiency and (3) Strong form of efficiency.

Weak form of EMH

In this form of efficiency, current stock prices reflects all the past information available including the historical sequence of price, rates of return, trading volume and market generated information. This implies that the future share prices cannot be forecasted using past rates of return and other market data.

Semi strong forms of EMH

The semi strong form of EMH argues that the current prices of stock reflect all the information content of historical prices and the publicly available information about the corporations. This implies that information is quickly impounded in the share prices as they become available. Thus investors who base their decisions on new information cannot make above average profit after the information is made public. The semi strong form of EMH encompasses the weak form.

Strong form of EMH

This form of efficiency holds that successive prices changes and hence changes in stock returns are independent and are identically distributed. The prices fully reflect all the available information both from the public and private sources. No group of participants has monopolistic access to the relevant information hence no one makes above average profits. The hypothesis acknowledges the existence of some market imperfections e.g. transaction costs and information costs, but asserts that this cannot exist to a degree that it can allow participants to make more than expected profits.

2.3 EMPIRICAL TESTS OF EMH

The theory of market efficiency has been subject to more empirical testing than any other area in corporate finance – Lumby (1994). However not all results give consistent messages.

As far as weak efficiency is concerned, studies have consistently shown that prices tend to follow a random walk. Studies carried out by Granger and Morngestan (1963), Kendall (1953) and Alexander (1961) gave consistent results and confirmed that share price movements are independent and follow a random walk. Different researches by Fama (1965) and Fama and Blume (1966) focusing on trading rules designed to exploit possible systematic patterns in share price movements found out that abnormal returns could be earned using certain "filter techniques" but this abnormal return completely disappears if the cost of transaction is taken into consideration.

In Kenya Kiweu (1991) found out that it was not easy to develop a model that could be used to predict the share prices of companies quoted at NSE. This is because the movement in prices was independent and random supporting weak form of market efficiency.

Tests on the semi strong form of market efficiency have not given consistent results supporting semi strong form of the efficiency. However most tests have yielded positive results. Fama, Fisher, Jensen and Roll, (in Lumby 1994) examined the abnormal returns of shares where bonus or stock split was made. They found out that thirty months prior

to the bonus issue announcement, there were a strong positive abnormal returns and no movement on shares returns after the announcement, supporting the semi strong form. Ball and Brown (1963), Foster (1977) and Fama (1965) also carried out researches that supported the semi strong efficiency. In Kenya , a test done by Parkinson (1987) did not support the semi strong efficiency form. A more recent test was done by Ondigo (1995) and the result was inconclusive.

Tests into the strong form of market efficiency has been hampered by the fact that knowledge of inside information is required in order to test whether the information has affected share prices. It is not surprising that the researchers have experienced difficulty in getting such information to use in their tests. To overcome this, institutional investment managers who are believed to have some access to a company's private information (since they hold discussions with top executives of major companies) have been used in testing this level of efficiency. Jensen (1960) looked at the performance of 115 unit trusts. He found no evidence of significant abnormal profits. This implies that a market is efficient in the strong form. The fact that cases of insider trading have been reported even in the developed capital markets may suggest it is only valid theoretically.

In the context of capital market efficiency, information that is conveyed by a reporting delay should be impounded rapidly in the share prices. If a reporting delay signals the coming of bad news then the market should react to it by decreasing the share prices of those firms that report late (Kross, 1982). Ondigo (1995) contends that there is no evidence to conclude that the Kenyan capital market is in the semi strong efficiency form.

2.4 PRIOR RESEARCHES ON TIME LAG

Timeliness in reporting is an area that has attracted many researchers both locally and foreign, possibly because of the importance investors attach to the reports. Beaver (1968) contends that investors might even postpone their purchases and sales of their securities until the earnings report is released.

A research done by Beaver (1968) studied the relationship between interim and annual earnings announcement and the stock market behavior. His argument was that there should be increased security return viability associated with release of financial statement if at all the statements have any informational content.

The researcher sampled 143 companies and observed the stock market behavior for the period 1961-1965. He used trading volume activity (TVA) and the market model to test the informational content of interim and annual reports, the tests revealed a drastic increase in trading volume and a high variability in stock returns in the 17 weeks surrounding the announcement date. His conclusion was that the earnings reports have informational content.

Ball and Brown (1968) examined the behavior of stock return within 12 months up to earnings announcement date for 8 years between 1957 and 1965. They intended to determine the timeliness and information content of accounting numbers. They selected a sample of 261 companies from NYSE and classified them into two groups for each year of study i.e. companies whose earnings increased and companies whose earnings

decreased. Ball and Brown noted that the stock returns of firms whose earnings decreased had a negative abnormal return of 11.3% while the firms whose earnings increased had a positive abnormal return of 5.6%. They concluded that the year's income numbers captures 50% or more of the information about firms available during a year.

An investigation on the timing of the firm's press releases was also done by Pastena and Ronen (1979). Using a sample of the Standards and Poors 425 industrial index the study confirmed the hypothesis that managers of firms experiencing poor performance act as if they intend to delay negative information from reaching the public.

The hypothesis that poorly performing firms release their reports later than firms performing well was tested by Kross in 1982.The researcher used a sample of 200 firms listed on the New York stock exchange (NYSE). The sample firms were classified on the basis of their earnings news i.e. whether bad or good and as late reporting or early reporting. The study revealed that late earnings announcements have a high probability of containing bad news than do early announcements. Also investigated was the effect of late reporting on the firms' stock returns during the period surrounding the earnings announcement dates. The researcher compared the abnormal returns of firms reporting late with the abnormal returns of firms reporting early. This revealed that the shares of late reporting firms earn lower residual returns than early reporting firms during the days surrounding the earnings announcement date.

Chambers and Penman (1984) classified companies into two: - Those reporting promptly after the year-end and those that are less prompt in reporting. The research defined timeliness as the difference between expected reporting date and the actual reporting date. They then compared the variability of the stock returns of the two types of companies. The study revealed a high return variability associated with the early reporting firms and low return variability associated with less timely firms. The study focused on stock returns after the earnings announcement.

Zeghal examined the effects of timeliness on information content of interim and annual reports in 1984. He used two samples selected from companies listed on the NYSE and American Stock Exchange. His finding confirmed the hypothesis that accounting reports with shorter delay have a higher informational content than those with longer delay. Zeghal added that the major goal of accounting information in an efficient market is to adjust the expectations of investors if necessary. A delay in releasing the information increases the uncertainty associated with investors decisions hence decisions may be non optimal or delayed. This finding concurs with findings of Beaver (1968) and Davis (1968).

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

In 1992, Wachiuri carried out an investigation into the relationship between selected corporate auditor attributes and the timeliness of annual reports of companies listed in NSE. She found out that auditing firms per se are not determinants of reporting lag. This opened up this area of timeliness and possible cause of reporting delay for further research given the research only ruled out auditing firms as a possible cause of reporting lag.

An empirical test on the information content of annual reports and accounts of companies listed in the NSE was done by Ondigo in 1995. The study was based on a sample of 18 blue chip companies and the focus was on the behavior of share prices before and after the release of the annual reports. The study concluded that on average, the annual reports of sampled companies had no information content during the period of study. One possible explanation of the finding is that the investors may be in a position to predict earnings such that the share prices before the earnings announcement have already adjusted to most of the information contained in the forth coming annual reports. This can only be confirmed by a research on an unexpected share prices changes during the period shortly preceding the earnings announcement date.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 The population

The population was based on all companies listed in the Nairobi stock exchange that have been listed in the NSE for over five years form 1996 to 2001. This being the most recent period it is believed that the results based on the period reflects the current developments in the stock market. The five year period chosen is in consistence with most researches in other capital markets like Beaver (1988), Pettit (1972), and Kross (1988). In Kenya Kiweu (1990) and Parkinson (19987) also used a five year period in testing the efficiency of the capital market.

3.2 Sample size

Even though a census was more appropriate for the study, majority of the companies listed in the stock market did not qualify for inclusion in the sample due to the data necessary for the required analysis. The data requirement was therefore used as a screening procedure for selecting the sample.

Data requirement:

To qualify a company must at least have

i. Been listed for 5 years from 1996-2001.

ii. Annual reports and accounts and the announcement dates available for the period of the study.

iii. Daily stock prices for at least 100 days preceding the earnings announcement dates.

The above screening procedures reduced the population of 53 companies to a sample of only 19 firms. This sample size is almost the same as the sample size used by Ondigo in 1995. However only eight of the companies in his research sample qualified to be included in this research as most of them had missing data. In choosing the sample, it was important to select companies that are actively traded. Thos is not only because they have the data required but more important was the fact that they are the most watched securities in the NSE and investors would certainly react relatively fast to important information about the companies whether obtained through public announcement or through investors own intuition.

3.3 Data collection

Secondary data was used for the research. The following data was collected from the NSE secretariat:

i) Annual earnings for the sample companies and dates of earnings announcement and dividends declared.

ii) Daily stock prices for the selected companies.

iii) Daily NSE 20 share index for the research period.

The annual earnings and dividends were obtained from the annual reports and accounts of the sample companies. Dates of earnings announcement which in this

research means the day the reports is publicly announced either through the media or any other means could not be obtained hence the dividend announcement dates were taken as the earnings announcement dates. This is because in Kenya most companies announcements and especially dividends are contained in the interim or audited annual reports.

3.4. Data analysis

All the companies selected were first classified as reporting early or late. The classification was based on the expected earnings announcement dates and actual announcement dates. Companies that announced their reports before the expected announcement dates were classified as reporting early while those that announced their earning reports after the announcement dates had passed were categorized as reporting late.

There are two methods that can be used to calculate the expected announcement date:

1. Random walk: $E(Lag_{it}) = Lag_{it-1}$

2. Moving averages: $E(Lag_{it}) = Lag_{it-1} - \frac{1}{N}\sum_{J=1}^{N}(Lag_{it-j} - Lag_{it-j-1})$

Where;

$E(Lag_{it})$ = Expected number of days between the financial year-end and the earnings announcement date in period t.

Lag_{it} = Actual number of days between the financial year-end and the earnings announcement date of firm i in period t.

N = Number of accounting periods used in the estimation process.

Kross (1982) contends that the first method is biased and can lead to classifying a firm as a reporting late or early for two consecutive years. For example if a firm reported very late in 2000 relative to the preceding year, model (1) would recognize this firm as reporting early in 2001 unless year 2001 announcement was made even later than 2000. Model (2) mitigates this bias and hence it has been chosen for this study.

Expected earnings of the sample were generated using the model.

$$E(N_{It}) = NI_{t-1} \quad \ldots\ldots(3)$$

Where;

$E(N_{It})$ = Expected net income at time t.

NI_{t-1} = the actual net income in the previous period.

t = time period in years.

In developed markets there are investments analysts who are able to forecast corporations earnings. Since these services are not available in Kenya, the model above was used to

generate the expected earnings. The expected earnings for the years in study were compared with the actual earnings to classify a company as reporting bad or good news. This classification is based on the assumption that investors will look forward to a better result than in the previous year hence anything less than previous years earning is bad news. This model was used by Ball and Brown in 1968 in their study of timeliness and information content of accounting numbers.

Using the actual reporting date and the estimated reporting date, the actual earnings and the estimated earnings companies were classified as either reporting late or early and as reporting bad news or good news for each period of study. Every time a company qualified to be included in the sample (irrespective of the year) an observation was counted . In total there were 95 observations (see table 4.1). A chi-square (X^2) test was used to determine whether there is any systematic relationship between the type of news (good or bad) and the timing of announcement (early or late).

3.5 Effects of late reporting on stock returns.

To achieve the second objective daily stock returns of each company in each year and the expected returns during the same period were calculated for a period of 21 days covering 10 days preceding the announcement date and 10 days after the announcement. There have been no consistency in the number of days used. Kross (1988) used 11 day period in a similar research while Ondigo (1995) used 17 days. Other researches have used more than 21 days. The researcher used 21 days as an average consensus. The market model

was used to calculate expected returns. The expected returns were compared with the actual returns to determine abnormal returns. The market model is given as below

$$ER_{it} = a_i + b_i R_{mt} \quad \text{.....(4)}$$

Where:

ER_{it} = The expected return of security i in period t.

R_{mt} = Return of market portfolio in period t. NSE 20 share index was used.

a_i & b_i are market model parameters .

Return of the market portfolio was obtained by:

$$R_{mt} = \frac{M_{it} - M_{it-1}}{M_{it-1}} \quad \text{.....(5)}$$

M_{it} = Market index in day t.

M_i = Market index in day t-1.

The market model parameters for every company in every year of study was estimated by a regression analysis using share prices of the sample companies and the market returns for the 100 days period ending 11days before the earnings announcement date. A similar research done by Kross (1982) on NYSE used 200 days to estimate the market model parameters but this was not appropriate in NSE since many companies that do not trade actively would have been excluded in this research The market model was used by Beaver (1968), Kross (1982) and Ondigo (1995). The model has also been supported for

researches on residual analysis. " The market model is not subject to Rolls critique where as the empirical market line and CAPM are. Thus residual analysis that employs CAPM or empirical market line may be subject to criticism" Copeland (1987).

Adjustments was done where there was a rights or bonus issue of shares. The formulae below were used.

$$X_{it} = \frac{MPOS - SPNS}{N+1}:$$ Ondigo (1995).

And

$$Y = CB_p\left(1 - \frac{1}{1+2}\right)$$: Kiweu (1991).

Where:

X_{it} = Estimated value of right issued on share I in day t.

MPOS = cum right market price per share of the outstanding shares.

SPNS = subscription price for the new issue of a sufficient number of shares.

N = number of rights required to purchase one new share.

Y = drop in the price of security i.

CB_p = cum bonus price.

Actual returns were calculated using the model

$$R_{it} = \frac{P_0 - P_1 + Div}{P_0} \quad \text{.....(5)}$$

Where: -

R_{it} = Actual returns of company i in period t

P_0 = Price at the beginning of the day

P_1 = Price at the end of the day

Div = Dividend.

The residual returns (Abnormal returns) for each company in each year of study was calculated as:

Residual Returns $(RR) = R_{it} - ER_{it}$

A non-parametric analysis of variance using F test and Mann Whitney U test was used to assess the significance of the difference of abnormal returns of firms that report early and firms that report late.

CHAPTER 4

4.0 RESEARCH FINDINGS

4.1 Timing of earning announcement and kind of news.

The companies were cross tabulated using the four categories as early reporting firms, late reporting firms, companies reporting good news and companies reporting bad news. This was done by comparing the actual profit earned with the expected profit to classify the earnings as good or bad news and then comparing the actual reporting date with the expected reporting date to classify a firm as reporting early or late. The results of this tabulation are provided below.

Table 4.1: Chi square cross tabulation.

	Good news	Bad news	Row Totals
Earlier reporting firms	30	25	55
Late reporting	21	19	40
Column Totals	51	44	95

Degrees of freedom: 1

Chi-square calculated: 0.038252.

Critical value: 3.841.

The results show that the calculated statistic is within the critical value. Thus we fail to reject the null hypothesis and conclude that there is no systematic relationship between timeliness in reporting and the kind of news reported by companies.

4.2. Effects of late reporting on stock returns.

The actual and expected returns for each of the 21 days surrounding the earnings announcement dates was calculated for each company in every year of the study. The market model parameters were estimated for each company in each year of study by regressing the actual stock returns of sample companies against the market returns.

The cumulative average residuals of the late reporting and early reporting companies were calculated for each day of the window period using the formula:

$$CAR_t = \frac{RR_{c1} + RR_{c2} + \ldots\ldots\ldots\ldots + RR_{cN}}{N}$$

Where :

CAR_t = Cumulative average residual (of early or late reporting firms) at time t.

RR_{c1} = Residual return of observation c1 in time t.

t = Window period in days (-10 to + 10).

N = Number of observations. 55 for early firms and 40 for late firms.

CN = An observation. Every time a company qualified to be included in the sample, there was one observation.

Table 4.2: Cumulative average residuals for early and late reporting firms

DAY	LATE REPORTING FIRMS (N = 55)	EARLY REPORTING FIRMS (N = 40)
-10	-0.05062	-0.06576
-9	-0.05225	-0.02980
-8	-0.04312	-0.06819
-7	-0.0414	-0.04322
-6	-0.04303	-0.08994
-5	-0.04596	-0.03307
-4	-0.04050	-0.08355
-3	-0.05167	-0.05870
-2	-0.05335	-0.10097
-1	-0.02860	-0.07442
0	-0.03644	0.02894
1	-0.05237	-0.05490
2	-0.03981	-0.02232
3	-0.04418	-0.07912
4	-0.04088	-0.03044
5	-0.06242	-0.07053
6	-0.04844	-0.01050
7	-0.04209	-0.06549
8	-0.05578	-0.08415
9	-0.03548	-0.01662
10	-0.0565	-0.06839

Table 4.3: Man Whitney U test

DAY	U	Sum of ranks of early firms (R1)	Sum Of ranks of late firms (R2)	M-W (Z-Scores)
-10	1099	2530	1841	0.30
-9	1161	2592	1779	0.78
-8	1099	2530	1841	0.30
-7	1151	2582	1789	0.71
-6	1046	2477	1894	-0.11
-5	1127	2558	1813	0.52
-4	1075	2506	1865	0.12
-3	1114	2545	1826	0.42
-2	1025	2456	1915	-0.27
-1	1049	2480	1891	-0.09
0	1076	2507	1864	0.12
1	1171	2602	1769	0.86
2	1062	2493	1878	0.02
3	1104	2535	1836	0.34
4	1146	2577	1794	0.67
5	1114	2545	1826	0.42
6	1078	2578	1793	0.68
7	1091	2509	1862	0.14
8	1083	2522	1849	0.24
9	1213	2514	1857	0.18
10		2644	1727	1.19

Z Critical at 95% confidence level – 1.96.

In all the days Z is not significant.

Table 4.4: F Test.

DAYS	Test Statistic
-10	0.0001
-9	0.5806
-8	0.0001
-7	0.0010
-6	0.0991
-5	0.4836
-4	0.0619
-3	0.0001
-2	0.3554
-1	0.0001
0	0.0000
1	0.0000
2	0.2124
3	0.0088
4	0.1050
5	0.0012
6	0.0153
7	0.0000
8	0.0522
9	0.0279
10	0.6019

The results of the F test also shows that the residual returns of the two samples were not significantly different.

CHAPTER 5

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

5.1 Summary and interpretation of findings

The first objective of this research was to find out whether firms having bad earnings report latter than firms with good earnings. The Chi Square test performed indicated no systematic relationship between a firm's earning (whether good or bad) and the timing of the release of the annual reports. This implies that companies quoted at the NSE do not deliberately delay the announcement of poor results, an indication that there may be other factors explaining the delay in reporting.

The findings of this study tend to contradict early researches done on time lag. A similar study conducted by Kross (1982) on companies quoted at NYSE concluded that poor earnings news have a tendency of being delayed by the management .In Kenya, Lishenga (1989) did an investigation on time lag and the certain corporate attributes. One of the attributes tested was relative profitability and time lag .The results supported the theory that bad earnings news is delayed. However Lishenga defined timelessness as the lag occurring between the balance sheet date and the date of release of the annual reports. This is materially different with the definition adopted in this study.

5.2 Test of returns around earnings announcement dates

None of the two tests of significance conducted in each day surrounding the earnings announcement date was significant. Both the analysis of variance using F test and Man Whitney U test conducted at 95% level of significance proved that the residual returns of the late and early reporting firms were not significantly different. Thus we fail to reject the null hypothesis and conclude that the performance of companies in the NSE is not affected by the timeliness of earnings announcement.

The result of the tests implies that the investors in Kenya do not react negatively to delays in reporting. This goes against conventional knowledge and is also unlike the behavior of investors in other capital markets. The behavior can partly be attributed to the fact that in Kenya annual reports and accounts have no information content (Ondigo, 1995). However it is also important to note that the study covered a period when the Kenyan economy was experiencing a depression and the economic growth was less than 2%. Thus the investment activity and performance of the companies is expected to have been low. This might have affected the stock returns of the quoted companies hence influencing the results.

Another implication of the findings touches on the efficiency of the capital market. Researches done by Ondigo and Parkinson in 1995 and 1987 indicated that there is evidence to support that the NSE is inefficient in the semi strong form and hence the share prices could be taking too long to reflect the delay in reporting in the share prices.

Researches done by Omosa (1989) and Kiweu (1991) did not support the use of asset pricing models in the Kenyan capital market contrary to the market model used in this study, which assumes a linear relationship between securities returns and return on the market portfolio. Omosa concluded that the selected asset pricing models (Arima models, Capital Asset Pricing Model and Capitalization of Earnings Per Share (EPS) were not good predictors of share prices on the NSE. Kiweu also contends that it is not possible to develop a model that could be used to predict the share prices of companies quoted at NSE. Thus the findings of this research are limited to the extent the market model can predict future prices of the quoted companies.

5.3 Limitations of the study

The study used market model to calculate expected returns. Even though the regression was carried out using share prices for 100 days which is fairly high and expected to give a fairly reliable estimate of the market model parameters, the applicability of the model and its accuracy is sometimes limited as it suffers from measurement errors that may occur in the coefficients which vary systematically with the test statistics. This can easily lead to wrong results of the tests.

Despite the limitation of the market model there was also a problem with availability of data. The researcher intended to carry out a census of the companies that have been listed during the research period. Daily stock prices of these companies, the earning announcement dates and the daily NSE 20 share index for the study period was required. The information was not easily available for all the companies hence only 19 companies

were sampled. Companies whose daily share prices for the 100 days used in determination of the market model parameters could not be obtained and those whose share prices for the research window days were missing could not be included in the sample. The dividend announcement dates were taken as the earnings announcement dates hence it was not easy to get the announcement dates of companies that did not declare dividend in a particular year.

5.4 Suggestions for further Research

There are three different definitions of timelessness (time lag) in reporting as given in chapter one of this study. The current research used the definition of timelessness as the difference between the actual reporting date and the expected reporting date. Other studies that may shed light in this area can be done using the definition of timelessness as frequency of reporting or the time lag /reporting delay after the financial year end (the research done by Lishenga did not focus on the effects of time lag on stock returns). The results of these researches could be compared to reach a consensus.

It has been noted earlier in this study that the market model parameters suffers limitations, which could easily affect the results of the tests. This limitation can be overcome by using other asset pricing models e.g. capital asset pricing model (CAPM). A similar research covering this same time frame but using different models for estimating the expected returns may be done in future to corroborate the findings of the current research.

Lastly, many companies are now issuing interim unaudited reports in addition to the annual repots and accounts. It will be important to carry out a similar research using interim results to determine whether the interim results have more information content than the annual reports hence rendering the annual reports not useful to investors.

APPENDIX 1: LIST OF SAMBLE COMPANIES AND THEIR CODES.

COMPANY	CODE
1.NATION MEDIA GROUP	NMG
2.NATIONAL INDUSTRIAL CREDIT BANK	NIC
3.KENYA POWER AND LIGHTING COMPANY	KPLC
4.TPS SERENA	TPS
5.UCHUMI SUPERMAKERTS	UCHUMI
6.BAMBURI CEMENT COMPANY	BAMBURI
7.BRITISH AMERICAN TOBACCO	BAT
8.BARCLAYS BANK OF KENYA	BBK
9.CFC BANK	CFC
10.DIAMOND TRUST OF KENYA	DTK
11.FIRESTONE KENYA LTD	FIRESTONE
12.HOUSING FINANCE COMPANY	HFCK
13.EAST AFRICAN BREWERIES LIMITED	EABL
14.JUBILEE INSURANCE LIMITED	JUBILEE
15.ICDC INVESTMENT	ICDCI
16.KENYA COMMERCIAL BANK	KCB
17.STANDARD CHARTERED BANK OF KENYA	STANCHART.
18.KENYA AIRWAYS	KENAIR
19.TOTAL KENYA LIMITED	TOTAL

APPENDIX 2: EARNINGS ANNOUNCEMENT DATES.

COMPANY	1997	1998	1999	2000	2001
NMG	10 APRIL	3 APRIL	15 APRIL	13 APRIL	24 APRIL
NIC	7 MARCH	19 MARCH	2 MARCH	6 MARCH	1 MARCH
KPLC	11 NOV.	7 OCT.	30 SEPT.	14 OCT.	20 OCT.
TPS	1 MARCH	6 MARCH	24 APRIL	29 MARCH	4 FEB.
UCHUMI	9 OCT.	16 OCT.	27 OCT.	26 OCT.	30 OCT.
BAMBURI	19 FEB.	18 FEB.	18 FEB.	28 FEB.	27 FEB.
BAT	12 FEB.	11 FEB.	15 FEB.	28 FEB.	2 FEB.
BBK	28 FEB.	19 FEB.	16 FEB.	15 FEB.	13 FEB.
CFC	29 APRIL	23 MARCH	20 MARCH	15 MARCH	19 MARCH
DTK	25 MARCH	30 MARCH	21 MARCH	13 MARCH	15 MARCH
FIRESTONE	19 FEB	20 FEB.	19 FEB.	18 FEB.	16 FEB.
HFCK	28 FEB.	12 MAR.	15 FEB.	14 FEB.	19 FEB.
EABL	2 SEPT.	17 SEPT	16 SEPT.	4 SEPT.	3 SEPT
JUBILEE	6 APRIL	12 MARCH	9 APRIL	12 APRIL	10 APRIL
ICDCI	16 SEPT.	17 SEPT.	28 SEPT	27 SEPT.	2 AUGUST
KCB	12 MARCH	8 APRIL	7 MARCH	11MARCH	23 FEB
STANCHART	27 FEB	24 FEB	1 MARCH	23 FEB	22 MARCH
TOTAL	7 MARCH	3 MARCH	22 MARCH	29 MARCH	9 MARCH
KENAIR	14 JULY	2 JULY	2 JULY	30 JULY	2 FEB

SOURCE: COLLECTED FROM NSE'S LIST OF CORPORATE ACTIONS.

APPENDIX 3: PROFITS/ (LOSS) OF SAMPLE COMPANIES IN 000'SHS.

	1997	1998	1999	2000	2001
NMG	284,300	315,900	249,800	203,100	256,700
NIC	398,561	310,709	300,828	312,358	253,834
KPLC	1,215,000	1,347,000	1,305,000	1,069,912	2,876,711
TPS	45,314	57,362	79,336	83,052	96,706
UCHUMI	224,948	312,612	243,389	282,670	89,198
BAMBURI	780,000	568,000	630,000	289,000	731,000
BAT	634,049	1,123,274	1,237,398	582,710	604,109
BBK	2,678,000	3,000,000	2,254,000	2,068,000	2,955,000
CFC	258,012	239,186	189,304	193,642	141,392
DTK	158,322	206,564	104,224	163,574	40,932
FIRESTONE	670,521	612,352	390,282	292,484	333,600
HFCK	297,127	285,734	70,682	52,223	(185,724)
EABL	870,878	230,970	1,075,745	1,234,060	1,573,406
JUBILEE	134,277	139,811	94,277	78,102	101,582
ICDCI	145,090	149,744	271,982	227,147	210,066
KCB	2,566,412	1,410,598	(1,554,665)	(464,469)	381,980
STANCHART	1,064,790	1,602,963	1,753,636	2,167520	2,235,228
KENAIR	613,084	1,314,000	1207,000	2,922,000	1,357,000
TOTAL	127,791	321,063	551,420	206,509	222,101

SOURCE: COLLECTED FROM ANNUAL REPORTS AND ACCOUNTS.

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