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**THE RELATIONSHIP BETWEEN FREQUENCY OF
FINANCIAL DISCLOSURES AND FINANCIAL
PERFORMANCE OF COMPANIES QUOTED AT THE
NAIROBI STOCK EXCHANGE //**

BY
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**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF MASTER OF BUSINESS ADMINISTRATION (MBA)
DEGREE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI.**

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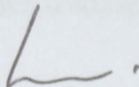


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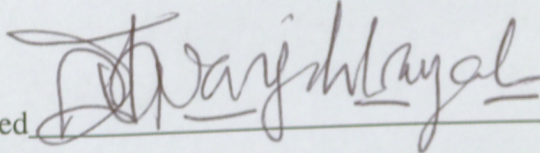
DECLARATION

This Management Project is my original work and has not been presented for a degree in any other University.

Signed  Date 12/11/2007.

Fredrick Otieno Oyugi
D61/P/8961/2004

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

Signed  Date 12/11/2007.

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DEDICATION

PAGE

Dedication (i)

To my loving mum, Susan Oyugi and my wife, Margaret Ndenge for their support, encouragement and understanding during the time I undertook the MBA degree studies. (v)

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ABSTRACT

Stock prices, market liquidity and private information collection are affected when financial disclosure is varied along different dimensions. International Accounting Standard (IAS) number 34 advises companies who file interim reports to conform to certain disclosure requirements, it does not mandate any particular interim reporting frequency. Therefore the question is, does it add value to make frequent financial disclosures in a given year? If so what are the benefits? What are the effects of financial disclosure? The objectives of this study were first to determine whether or not there exists a relationship between frequency of financial disclosure and security returns. Secondly to establish whether or not there exists a relationship between frequency of financial disclosure and volume of shares traded at the Nairobi Stock Exchange (NSE).

The main literature sources included a study by Bushee and Noe (2000), in which they found that companies that improved their disclosure practices tend to register increases in their share prices. On the other hand, Lobo and Tung (1997) found that quarterly reporting arouses a lot of investor interest which translates to higher trading volumes in a company's shares.

This particular study used data covering a five year period from 2001 to 2005 derived from the NSE. Security returns were determined using the market model on monthly basis. Trading volumes were determined by shares traded divided by outstanding shares for each month.

The study revealed that security returns for firms reporting on quarterly basis were higher compared to those of firms reporting semi annually. Trading volumes of firms reporting on quarterly basis were found to be higher compared to trading volumes of the firms reporting semi annually. The study concluded that there exists a strong relationship between frequencies of financial disclosure and trading volume of firms quoted at the NSE. On the other hand, there is a weak relationship between financial disclosure frequency and share returns of companies quoted at the NSE.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Financial information is essential in making sound investment decisions. The goal is to have financial information reporting that is timely and of value, so that investors will be able to use it in their investment decision process.

Some investors may make their own investment decisions by the direct examination of the annual reports. However, others may seek the services of professionals in financial analysis to analyze the financial statements for them. Based on the findings and interpretations of financial analysis, investors make investment decisions that affect the society.

The Committee of the American Accounting Association (1966), defined accounting as the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information. Financial statements therefore, are a means by which users get information on accounting activities of an entity.

Lewis and Pendrill (2004) argue that financial reporting is not an end in itself but is intended to provide information that is useful in making business and economic decisions. They further state that financial reports should provide information about the economic resources of an enterprise, the claims to those resources, and the effects of transactions, events and circumstances that change resources and claims to those resources.

The International Accounting Standards Board's (IASB) framework for the preparation and presentation of financial statements (2001), states that the objective of financial statements is to provide information about the financial position of an enterprise that is useful to a wide range of users in making economic decisions. The Board further states that a set of complete financial statements normally includes a balance sheet, an income statement and a statement of changes in financial position. The notes and other statements and explanatory material that accompany the financial statements are integral part of the financial statements. The framework further states that financial statements do not include such items as reports by directors, statements by the chairman, discussion and analysis by management and similar items that may be included in an annual report.

The IASB groups the users of financial statements to include present and potential investors, employees, lenders, suppliers and other trade creditors, governments and their agencies and the public.

The Capital Markets Authority regulations (2002) sets out requirements for companies listed at the Nairobi Stock Exchange. One of the requirements is that for companies to continue being listed, they have to submit published accounts including balance sheets and income statements within four months after the end of the financial year.

The Capital Markets Authority has also developed guidelines for good corporate governance practices by public listed companies in Kenya. This is in recognition of the role of good governance in corporate performance, capital formation and maximization of shareholders' value as well as protection of investors' rights. These guidelines require the directors of every listed company to undertake or commit themselves to adopt good corporate governance practices as part of their continuing listing obligations.

The Capital Markets Authority, in developing CMA guidelines has adopted both a prescriptive and a non-prescriptive approach in order to provide for flexibility and innovative dynamism to corporate governance practices by public listed companies. The CMA guidelines require every public listed company to disclose, on an annual basis, in its annual report, a statement of the directors as to whether the company is complying with CMA guidelines on corporate governance with effect from the financial year ending in 2002, as prescribed under the Capital Markets (Securities) (Public Offers, Listing and Disclosures) Regulations, 2002.

The directors are also expected by the CMA guidelines to review regularly the processes and procedures of the company, to ensure the effectiveness of its internal systems of control, so that its decision-making capability and the accuracy of its reporting and financial results are maintained at a high level at all times. CMA guidelines also emphasises the need for directors to serve certain rights of the shareholders in their good corporate governance. One of these is the right to obtain relevant information on the company's financial affairs on a timely and regular basis.

(The Capital Markets Regulations, 2002)

1.2 FINANCIAL DISCLOSURES

Financial disclosure impacts capital markets in many subtle ways. Stock prices, market liquidity and private information collection are affected when financial disclosure is varied along different dimensions.

According to Capital Markets Authority (2002), companies listed at the Nairobi Stock Exchange are required to disclose periodically financial information relating to dividend and interest payment, changes in capital structure and shareholdings. The regulations also stipulate that the annual financial reports must be prepared in accordance with the international financial reporting standards and be audited by registered accounting practitioners. The regulations also require that listed companies prepare unaudited interim reports.

International Accounting Standard (IAS) number 34 prescribes the minimum content of an interim financial report and the principles for recognition and measurement in complete or condensed financial statements for an interim period. Timely and reliable interim financial reporting improves the ability of investors, creditors and others to understand an entity's capacity to generate earnings and cash flows and its financial condition and liquidity. Interim period is a financial reporting period shorter than a full financial year such as half-year or quarterly.

Lobo and Tung (1997), concluded that quarterly reporting arouses a lot of investor interest which translates to higher trading volume and higher share prices. Another study conducted by Bushee and Noe (2000), found that companies with improved disclosure practices tend to register increases in their share prices due to increased investor interest.

1.5 IMPORTANCE OF THE STUDY

1.3 STATEMENT OF RESEARCH PROBLEM

Interim reporting frequency (IRF) ranges from a low of twice a year to a high of four times a year. While IAS 34 advises companies who file interim reports to conform to specific principles it sets forth, it does not mandate any particular interim reporting frequency. Companies are therefore left to assess what level of frequency will add value to the users of financial statements.

Yee (2004) observed that there were many reasons to believe that more frequent interim reporting would be desirable. For instance, by improving the timeliness of disclosure, investors would be able to monitor the performance of management and reduce agency frictions. On the other hand, he noted that more frequent interim reporting increases the administrative costs associated with compiling, printing and distributing interim financial reports. This clearly indicates that though more frequent interim reporting may achieve its goal of improving timeliness of disclosure, it may also have undesirable side effect of increased costs.

Therefore the question is, does it add value to make frequent financial disclosures in a given year? If so what are the benefits? What are the effects of financial disclosure? Hence the study mainly assessed the relationship between frequency of financial disclosure and financial performance of companies at the Nairobi stock exchange.

1.4 OBJECTIVES OF THE STUDY

- i. To determine whether or not a relationship exists between frequency of financial disclosures and returns.
- ii. To determine whether or not a relationship exists between frequency of financial disclosures and trading volumes.

1.5 IMPORTANCE OF THE STUDY

This study will be of significance to the following:-

a. Regulators and Policy makers

Currently in Kenya, only financial institutions are required to publish their financial statements quarterly. Regulators may need to know whether there is a benefit or whether companies that publish their accounts frequently perform better than the ones that publish once. This can form a basis of formulating a policy to be followed by all companies on the number of times they should disclose their financial affairs.

b. Investors and General Public

The investors and general public will be able to know companies that make financial disclosures more frequently. And determine whether or not there exists a relationship between frequency of financial disclosure and performance.

c. Academicians and Researchers

Being the managers, directors, regulators and shareholders, the information gathered from this study will enrich their knowledge and make them more prepared to make important decisions on financial disclosures in future.

2.0 INTRODUCTION

This chapter discusses the topic under different sections in order to give an insight into matters relating to frequency of financial disclosures and its relationship with companies' returns and trading volume of shares.

2.1 THE SIGNIFICANCE OF FINANCIAL DISCLOSURES

Companies are required by the IAS 32 to provide disclosures in their financial statements that enable users to evaluate:

- a) the significance of financial instruments for the entity's financial position and performance; and
- b) the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the reporting date, and how the entity manages those risks.

The qualitative disclosures describe the management's objectives, policies and processes for managing these risks. The quantitative disclosures provide information about the extent to which the entity is exposed to risk, based on information provided internally to the entity's key management personnel. Together these disclosures provide an overview of the entity's use of financial instruments and the exposures to risks they create.

Selamat and Puchwa (1981) stated that firms would voluntarily increase the amount of their financial disclosures when they attempt to raise external capital.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

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2.1 THE SIGNIFICANCE OF FINANCIAL DISCLOSURES

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Salamon and Dhaliwal (1981) stated that firms would voluntarily increase the extent of their financial disclosures when they attempt to raise external capital.

They noted that firms that attempt to attract greater public and investor interest would voluntarily maintain higher levels of financial disclosure than those firms which make no such attempt, hence resulting in lower cost of capital when seeking external financing and higher returns for its shareholders through increased capital market activities for the shares. They further observed that optimum level of voluntary disclosure is lower for small firms than for larger firms. Thus given the company size, bigger firms would voluntarily make more frequent financial disclosures and at a lower cost which will translate into increased investor interest in the firm's shares. This will in turn result in better performance of their stock prices in the market.

2.2 FREQUENCY OF FINANCIAL DISCLOSURES/INTERIM REPORTING

Interim financial report means a financial report containing either a complete set of financial statements (as described in IAS 1 Presentation of Financial Statements) or a set of condensed financial statements for an interim period. Interim period is a financial reporting period shorter than a full financial year.

In the interest of timeliness and cost considerations and to avoid repetition of information previously reported, an entity may be required to or may elect to provide less information at interim dates as compared with its annual financial statements. IAS 34 defines the minimum content of an interim financial report as including condensed financial statements and selected explanatory notes. The interim financial report is intended to provide an update on the latest complete set of annual financial statements. Accordingly, it focuses on new activities, events, and circumstances and does not duplicate information previously reported.

Nothing in IAS 34 standard prohibits or discourages an entity from publishing a complete set of financial statements (as described in IAS 1) in its interim financial report, rather than condensed financial statements and selected explanatory notes.

Where an entity publishes a complete set of financial statements in its interim financial report, the form and content of those statements shall conform to the requirements of IAS 1 for a complete set of financial statements.

According to IAS 34, an interim financial report shall include, at a minimum, the following components: (a) condensed balance sheet; (b) condensed income statement; (c) condensed statement showing either (i) all changes in equity or (ii) changes in equity other than those arising from capital transactions with owners and distributions to owners; (d) condensed cash flow statement; and (e) selected explanatory notes.

If an entity publishes a set of condensed financial statements in its interim financial report, those condensed statements shall include, at a minimum, each of the headings and subtotals that were included in its most recent annual financial statements.

As a result, higher Interim Reporting Frequency (IRF) improves market liquidity and reduces announcement period price volatility. However, more frequent interim reporting induces analysts to acquire information more frequently in conjunction with each of the more frequent earnings announcements. As a result, total analysts' expenditures integrated over all announcement dates increase with IRF. (Yee, 2004)

2.3 COSTS AND BENEFITS OF FREQUENT FINANCIAL DISCLOSURES

Yee (2004), Outlined four benefits of more frequent interim reporting. First, by improving the timeliness of disclosure, more frequent reporting would help investors monitor the performance of management and reduce agency frictions. Second, by making stock prices impound interim news more frequently, more frequent interim reporting would improve the efficiency of capital allocation.

Third, by spreading news out across more frequent interim earnings announcements, more frequent reporting reduces information asymmetry between sophisticated and less sophisticated traders and, hence, improves market liquidity on earnings announcement dates.

Fourth, by reducing interim information asymmetry between insiders and the public, more frequent interim reporting may reduce wasteful redundant rent-seeking efforts by analysts trying to acquire undisclosed information.

An old argument against more frequent interim reporting is the administrative costs associated with compiling and distributing interim financial reports. While modern computer technologies and the Internet have rendered such arguments moot, other concerns persist. It is also unclear if mandating more frequent interim reporting actually increases the overall disclosure by the firm. (Yee, 2004)

McNichols and Manegold (1983) find evidence that interim reporting simply pre-empts information that would be otherwise disclosed in subsequent annual reports. Moreover, interim reporting may not even improve the timeliness of overall disclosure. Gigler and Hemmer (1998) argue that mandating more frequent interim reports cause managers to commensurately reduce their voluntary disclosure so that mandating more interim disclosure does not improve overall disclosure or the timeliness of disclosure.

Butler et al (2002) found that the institution of mandatory quarterly reporting in the United States in 1970 did not increase actual earnings because quarterly reporting reduced the voluntary disclosure of firms which were forced to switch from semi-annual to quarterly reporting.

Whereas more frequent interim reporting may achieve its goal of improving the timeliness of disclosure, this may have undesirable side effects. Requiring managers to report earnings every month instead of every quarter or year may cause them to make myopic decisions.

Increasing the timeliness of disclosure affects the nature of competition in the product market and may potentially distort productivity and innovation. (Yee, 2004)

Another concern expressed by Yee (2004), is that, by creating more frequent earnings announcement days, more frequent reporting may induce additional information collection activities by analysts and other information intermediaries who profit from interpreting earnings announcement. Since such analysts' activity is largely redundant, the increased analysts' expenditures on such activities are a social cost.

2.4 FINANCIAL REPORTING IN KENYA

International Accounting Standard number one (IAS 1) prescribes the basis for presentation of general purpose financial statements, to ensure comparability both with the entity's financial statements of previous periods and with the financial statements of other entities. It also emphasizes that the financial statements shall be presented at least annually. The financial statements shall present fairly the financial position, financial performance and cash flows of an entity. In virtually all circumstances, a fair presentation is achieved by compliance with applicable International Financial Reporting Standards (IFRSs). An entity whose financial statements comply with IFRSs shall make an explicit and unreserved statement of such compliance in the notes. Financial statements shall not be described as complying with IFRSs unless they comply with all the requirements of IFRSs.

When preparing financial statements, management shall make an assessment of an entity's ability to continue as a going concern. Financial statements shall be prepared on a going concern basis unless management either intends to liquidate the entity or to cease trading, or has no realistic alternative but to do so. An entity shall disclose in the notes information about the key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

An entity shall disclose information that enables users of its financial statements to evaluate the entity's objectives, policies and processes for managing capital. (International Accounting Standards Board, 2006)

Company's Act Cap 486 section 147 requires companies to keep proper books of accounts and present a profit and loss account or an income statement together with the balance sheet for one calendar year not later than nine months in an annual general meeting. Section 149 further stipulates that every balance sheet laid before members must give a true and fair view of the state of affairs of the company as at the end of its financial year, and every profit and loss account must give a true and fair view of the profit or loss of the company for the financial year. Therefore the Act makes it mandatory for companies operating in Kenya to make financial disclosures at least once in a year.

The Capital Markets Authority (2002), regulations require companies listed at the Nairobi Stock Exchange to disclose periodically financial information relating to dividend and interest payment, changes in capital structure and shareholdings.

The CMA regulations also stipulate that the annual financial reports must be prepared in accordance with the international financial reporting standards and be audited by registered accounting practitioners. The regulations also require that listed companies prepare unaudited interim and quarterly reports.

Financial institutions have already complied with this requirement while nearly all the listed companies in the other sectors are still grappling with the question of whether to make quarterly disclosures or to continue making semi annual financial disclosures. Therefore, the question is whether these requirements do increase any value to the companies especially in terms of increasing the returns or volume of shares traded at the Nairobi Stock Exchange (NSE).

Omondi (2007) observed that apart from the financial institutions, East African cable is one of the companies that reports on a quarterly basis. Its share prices have maintained an upward movement ever since it embarked on this reporting mode in January 2006. This saw its share price surge from Kshs.214 to Ksh.620 in a span of six months, which dealers at the NSE attributed to increased investor interest on the firm due to the regular update of the firms performance. Other companies that produce quarterly trading results are Kenya Airways and East Africa Breweries whose share prices have also registered good performances in the market over the same six months period.

In his article, Omondi quoted Abdi Hassan, the portfolio manager at Old Mutual Asset Management (OMAM), who stated that "For institutional investors who move to the market with huge amounts of money, information is critical when making the investment decision." He further argued that investors will most likely invest in shares of companies that make more frequent financial disclosures, hence providing that critical information required on timely basis. This will have a positive effect on the prices and trading volume of the shares of companies listed at the NSE. (Omondi, 2007).

2.5 RELATIONSHIP BETWEEN FINANCIAL DISCLOSURES AND:

2.5.1 RETURNS

Bushee and Noe (2000), found that companies that improve their disclosure practices tend to register increases in their stock prices. In their study they investigated the effect of disclosure practices on stock return volatility. The study used data on disclosure practices published by the Association for Investment and Management Research (AIMR) between the years 1982 and 1996. Their study provided evidence on the impact of corporate disclosure practices on the composition of a firm's institutional investor base and the volatility of its stock price. They showed that institutional investors were attracted to firms with more forthcoming disclosure.

Further examination of the characteristics of institutional investors that tend to be attracted to firms with more highly regarded disclosure practices revealed that two very different types of institutions value more forthcoming disclosure. One type of institution attracted to disclosure, quasi-indexers, exhibited long investment horizons and low portfolio turnover. Attracting this type of institution helps reduce the volatility of a firm's stock price. However, disclosure also attracts transient institutions, which exacerbate a firm's stock return volatility with their short investment horizons and aggressive trading strategies.

Bush and Noe (2000) further observed that the net effect on stock return volatility of having both of these types of institutions own shares in a firm is roughly zero. However, when firms improve their disclosure practices, transient institutions immediately increased their holdings, whereas quasi-indexers did not, leading to a significant increase in firms' stock return volatility. Thus, this study has important implications for firms contemplating changes in their disclosure practices. Specifically, managers faced with decisions about whether to change their firms' disclosure practices must weigh any potential benefits of improved disclosure against the potential cost of attracting investors that exacerbate stock return volatility.

Healy et al (1999) found that increased disclosure leads to positive revisions to share valuation, enhanced market liquidity, and increased analyst and institutional interest in the stock. Gelb and Strawser (2001) observed that many firms recognize the importance of providing information to shareholders and present more informative disclosures in an effort to satisfy shareholder's needs and this translates into better performance of the firms share prices in the market.

Kothari (2001) found that financial reports provide new and relevant information to investors to enable them make investment decisions. This arouses the interest of investors and analysts leading to firm improved shares prices in the market.

Welker and Sparks (2001) concluded that voluntary disclosures stabilize share prices and the level of institutional investor holdings. Kyle (1985) examined the informational content of share prices, liquidity characteristics of a speculative market and the value of private information to an insider. He used a model of three kinds of traders; a single risk neutral trader, random noise trader and competitive risk neutral market makers trading in sequential auctions. The insider was found to make positive profits by exploiting his monopoly power over the private information incorporated in the share prices by the end of the trading period.

2.5.2 TRADING VOLUME

Lobo and Tung (1997) observed that trading volume around quarterly announcements is higher. They found out that trading volume is positively related to pre-disclosure information asymmetry and to the magnitude of the accompanying share price reaction. They also noted that compared with annual accounting information, quarterly accounting information is more timely and thus more relevant. On the other hand, quarterly financial statements are not audited, hence they are less reliable. They concluded that quarterly reporting arouses a lot of investor interest which translates to higher trading volume and higher share prices. The study used data from firms whose shares are traded at the New York stock exchange between the 1987 and 1990.

Kim and Verrecchia (1994) recognized that heightened trading activity surrounding earnings announcements is due to increased information asymmetry. They noted that, analysts (and their institutional employers) are especially active during announcement periods because their superior ability to interpret financial reports gives them a trading advantage when news is being disclosed. They also showed that informed judgements among traders from earnings announcements cause an increase in trading volume. In addition, this study examined the relation between trading volume at the time of quarterly earnings announcements and the degree of pre-disclosure information asymmetry.

The regression analyses conducted on a sample of 9,260 observations over the 1987 – 1990 period showed that trading volume reaction to quarterly earnings announcements is positively related to pre-disclosure information asymmetry and to the earnings announcements after controlling for the effect of each other.

Kim and Verrecchia (1994) analytical results showed that trading volume was positively related to pre-disclosure information asymmetry and to the magnitude of the accompanying price reaction. This study concluded that trading volume before earnings announcements was lowest for firms with the highest levels of analysts' forecast divergence and highest for firms with the lowest levels of analysts' forecast divergence.

Yee (2004) relates interim financial reporting frequency in a multi-period 'Kyle framework' to securities prices, trading volume, market liquidity, and analysts' information acquisition expenditures. The framework supports conventional wisdom that more frequent interim reporting improves the information content of security prices, reduces reporting day price volatility and trading volume, and enhances market liquidity. However, the model suggests that more frequent financial reporting induces analysts to increase their redundant information acquisition expenditures, which may be socially wasteful. The model also suggests that increasing interim reporting frequency reduces both the individual as well as per period information acquisition expenditure aggregated over all analysts.

2.6 THE EFFECT OF FINANCIAL DISCLOSURE FREQUENCY ON COST OF CAPITAL

Jensen and Meckling (1976) observed that an increase in financial disclosure results in reduction in the firm's cost of capital. If investors find it worthwhile to obtain detailed information regarding the firm, then the price they are willing to pay for the firm's stock will be inversely related to the cost of obtaining that information. In other words, the costs of obtaining financial information will be borne by the firm directly, or it will be imposed upon the firm via the stock price setting mechanism.

Jensen and Meckling (1976) further noted that increase in the company's financial disclosure would benefit the company and their shareholders in that the market value of their present holdings would increase and the company would be able to obtain the desired amount of new financing at favourable terms.

Dhaliwal (1979) of University of Iowa, conducted a study on the effect of disclosure regulation on cost of capital. He notes that it is widely accepted that the purpose of the Securities and Exchange Commission (SEC) disclosure regulations is to improve the quality of financial disclosure. If a disclosure regulation indeed improves the quality of financial disclosure of the affected firms, then it can be argued that it would have a favourable effect on their cost of equity capital. For example, Horngren (1957) and Choi (1973) argued that improved disclosure by a firm should lower its cost of equity capital. They argue that if analysts are kept well-informed then, over the long run, an individual company's stock prices will be relatively higher.

Higher security prices would mean that a primary security issue could be priced higher and that the net proceeds from the issue would be higher. Thus, the firm would experience larger receipts from a given issue and, hence, experience a lower cost of capital.

Horngren (1957) states that if analysts are kept well informed the following is likely to occur:

- (a) Analysts generally will be more interested in firms that disclose as opposed to those which do not.
- (b) Analysts' favourable attitudes result in higher price earning ratios.

Choi (1973) also argues that improved disclosure would lower a firm's cost of capital. He states that increased corporate financial disclosure tends to reduce uncertainty regarding a firm's present and future financial affairs. This, in turn, reduces investor perceived uncertainties and thus induces them to accept a lower rate of return yielding a lower cost of capital to the firm.

Duff and Phelps (1976) stated that consistently good financial reporting should have a favourable long-run effect on the company's cost of capital. This cost is relative, i.e., consistent with the company's opportunities and risks in relation to alternative investment opportunities in the market. Over a period of time, good reporting leads to informed investors who, because they understand the company, will pay a fair price for its securities.

All the above arguments lend direct support to the hypothesis that improved disclosure should have a favourable effect on the cost of capital. Therefore, if it can be assumed that a disclosure regulation such as reporting by line-of-business improves the quality of financial disclosure system of the affected firms, then the arguments presented by the above authors imply that it should lower their cost of equity capital. However, there are a number of arguments that run counter to the proposition that a disclosure regulation will result in a lower cost of equity capital.

3.2 SAMPLING

Due to the small population size, the study covered all the forty seven companies that were continuously listed at the Nairobi Stock Exchange over the period of study. Hence there was no need for sampling.

3.3 DATA COLLECTION TECHNIQUES

The study used secondary data derived from the Nairobi Stock Exchange. Data collected comprised of daily share prices, shares traded and shares outstanding for period of study. Information on dividends and dates of payment relating to the period was also collected.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 STUDY POPULATION

The population of the study comprised of all companies listed at the Nairobi Stock Exchange. The study focused on companies that were continuously listed for the period January 2001 to December 2005 as shown in Appendix 1.

A study conducted by Lobo and Tung in 1997 on quarterly announcements used data of companies listed at New York Stock Exchange for 4 years, between 1987 and 1990. Another study done in USA by Jensen et al (2006) on financial disclosure size and performance used data on listed companies over a seven year period. Given the similarity of the above studies to this particular study, five year period was deemed adequate to come up with findings.

3.2 SAMPLING

Due to the small population size, the study covered all the forty seven companies that were continuously listed at the Nairobi Stock Exchange over the period of study. Hence there was no need for sampling.

3.3 DATA COLLECTION TECHNIQUES

The study used secondary data derived from the Nairobi Stock Exchange. Data collected comprised of daily share prices, shares traded and shares outstanding for period of study. Information on dividends and dates of payment relating to the period was also collected.

3.4 DATA ANALYSIS AND PRESENTATION TECHNIQUES

Frequency of financial disclosure was categorized into companies that publish interim and final results (2) and companies that publish quarterly and final results (4). The study found no companies at Nairobi Stock Exchange that published their financial statements on annual basis.

3.4.1 Measurement of Financial performance

Financial performance was measured by:-

i) Returns

Return was determined using the Market Model:

$$R_e = \frac{P_1 - P_0 + \text{Dividends paid}}{P_0}$$

Where,

R_e = Return of Security

P_1 = Price of Security at the end of period

P_0 = Price of Security at Beginning of period. (Pandey, 2001)

Jensen et al (2006) in their study on financial disclosure and future performance used the model to measure returns of companies at the New York stock exchange.

3.4.2 Correlation

Average returns of security were computed for all the companies in the two categories on monthly basis (sixty (60) data points) and arranged in a table form and returns analyzed based on frequency of financial disclosure for the five year period.

Mean values of the above returns for all the categories of frequency of financial disclosure was determined and a graph plotted with:

Y – axis representing the mean values of the returns.

X – axis representing the periods of study

Graphs representing the mean values of returns for the two categories of frequency of financial disclosure i.e. semi annually and quarterly for five (5) years were drawn and analysed.

ii) Trading Volume

Trading volume was computed as follows:-

$$\text{VOL} = \frac{\text{SHRTD}}{\text{SHROUT}} \times 100$$

SHRTD = no. of the firms shares traded on the NSE in a month.

SHROUT = no. of the firms shares outstanding at the end of the month.

Lobo and Tung (1997) used the above measure to determine trading volume.

Total trading volumes of security were computed for all the companies on monthly basis in the NSE and arranged in a table form and volumes analyzed based on frequency of financial disclosure for the five year period. Mean values of the above volumes for the two categories of frequency of financial disclosure was determined; graph plotted and analysed to assess the performance of companies in two categories in terms of average trading volumes.

3.4.2 Correlation

The co-efficient of correlation for:

- i) Frequency of financial disclosure and returns
- ii) Frequency of financial disclosures and trading volumes were computed and the nature of relationship determined. The SPSS computer package was used to compute the Pearson's coefficient of correlation.

3.4.3 Test of difference

The returns and trading volume of the companies was reduced into three categories namely:

- a) above average,
- b) average and
- c) below average,

against two columns of semi-annual and quarterly disclosures.

Chi-square score was determined to find out whether there was significant difference in financial performance for different categories of frequency of financial disclosure.

The price at the beginning of the month as P_0 and the price at end of month as P_1 . The dividends paid were added to the difference of share prices ($P_1 - P_0$) where applicable, and the sum divided by P_0 to get the returns in each month. The average annual security returns were then computed from the monthly returns. The firms were then grouped into two; those whose disclosures are done semi-annually, and those whose disclosures are done quarterly. No firm was found to disclose annually only. Further, the information was tabulated and graphs drawn to support security return for different categories of reporting frequency. The coefficient of correlation was also determined to establish the nature of the relationship. Lastly the chi-square test was also done to establish whether there is a relationship between the frequency of financial disclosure and security returns.

The total shares traded in each month was calculated and divided by the shares outstanding (shares in issue) to come up with a percentage trading volume. Further analysis and tests were conducted for trading volumes as had been done with security returns.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The data used for this study was secondary data, obtained from the Nairobi Stock Exchange (NSE) relating to forty seven companies that were continuously listed during the period of study. The data was derived from a five-year period from 2001 to 2005. The daily market share prices that were readily available from the data were used to compute the monthly returns using the market model. The returns were calculated using the price at the beginning of the month as P_0 and the price at end of month as P_1 . The dividends paid were added to the difference of share prices ($P_1 - P_0$) where applicable, and the sum divided by P_0 to get the returns in each month. The average annual security returns were then computed from the monthly returns. The firms were then grouped into two; those whose disclosures are done semi-annually, and those whose disclosures are done quarterly. No firms were found to disclose annually only. Further, the information was tabulated and graphs drawn to compare security returns for different categories of reporting frequency. The coefficient of correlation was also determined to establish the nature of the relationship. Lastly the chi-square test was also done to establish whether there is a relationship between the frequency of financial disclosure and security returns.

The total shares traded in each month was calculated and divided by the shares outstanding (shares in issue) to come up with a percentage trading volume. Further analysis and tests were conducted for trading volumes as had been done with security returns.

4.2 Relationship between Frequency of Financial Disclosure and Security Returns

The first objective of the study was to establish whether there exists a relationship between financial disclosure frequency and security returns. The companies quoted at the Nairobi Stock Exchange were grouped into two based on frequency of financial disclosures and mean security returns analysed for each of the five years as shown below:- (See also appendices II & III)

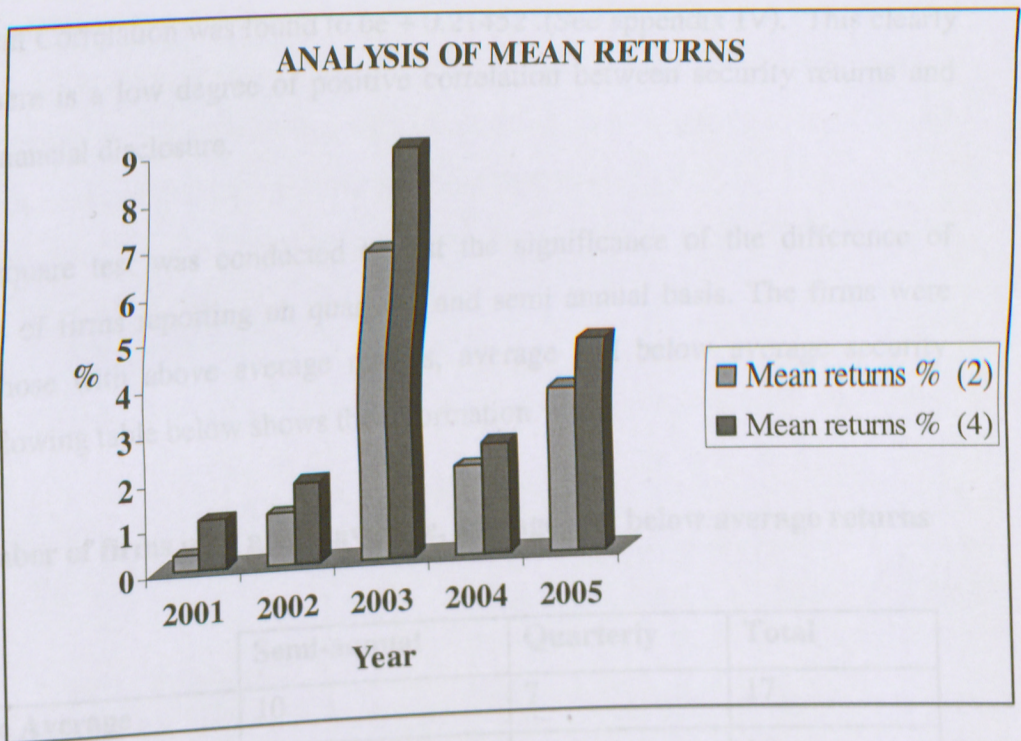
Table 1.1: Mean annual security returns for semi-annual and quarterly reporting firms

	2001	2002	2003	2004	2005
Mean returns % (2)	0.33633	1.12893	6.73645	1.94474	3.55275
Mean returns % (4)	1.0901	1.79415	8.94543	2.39604	4.59178

Table 1.1 above shows that mean annual security returns of shares for quarterly reporting firms were higher in all the five years compared to those of firms reporting semi annually.

The above results were also graphed as follows:

Graph 1.1: Comparison of Mean annual security returns for semi-annual with quarterly reporting firms



Graph 1.1 shows the Average annual security returns for the five-year period for the two reporting frequencies. It is evident from the graph that the security returns for quarterly reporting firms remained higher than for those reporting on semi annual basis throughout the study period.

Hence firms that made quarterly financial disclosures registered higher returns compared to the ones disclosing on semi annual basis. Firms with high security returns in the quarterly reporting category included East African Cables, Pan Africa Insurance Holdings, Barclays Bank, Kenya Airways and East African Breweries. Those in the semi-annual category included, Williamson Tea Kenya, East African Portland Cement, Standard Group, Athi River Mining, TPS Serena, Kenya Oil and Rea Vipingo Plantations. The year with the highest returns was 2003 for both categories of financial disclosures.

To determine the nature of relationship between frequency of financial disclosure and security returns in general, the coefficient of correlation was determined. The Pearson's Product Moment Correlation was found to be + 0.21452 .(See appendix IV). This clearly showed that there is a low degree of positive correlation between security returns and frequency of financial disclosure.

Finally a chi-square test was conducted to test the significance of the difference of security returns of firms reporting on quarterly and semi annual basis. The firms were grouped into those with above average returns, average and below average security returns. The following table below shows the information.

Table 1.2: Number of firms with above average, average and below average returns

	Semi-annual	Quarterly	Total
Above Average	10	7	17
Average	7	3	10
Below Average	16	4	20
Total	33	14	47

The null hypothesis is that there is no significant difference between the security returns for firms reporting on quarterly and for those reporting on semi annual basis. The chi-square value obtained was 1.970600968, whereas the critical value for 2 degrees of freedom at 5% level of significance was 5.991. The null hypothesis is accepted. Hence it can be concluded that security returns for firms reporting on quarterly and those on semi annual basis do not differ significantly.

4.3 Relationship between Frequency of Financial Disclosures and Trading Volume.

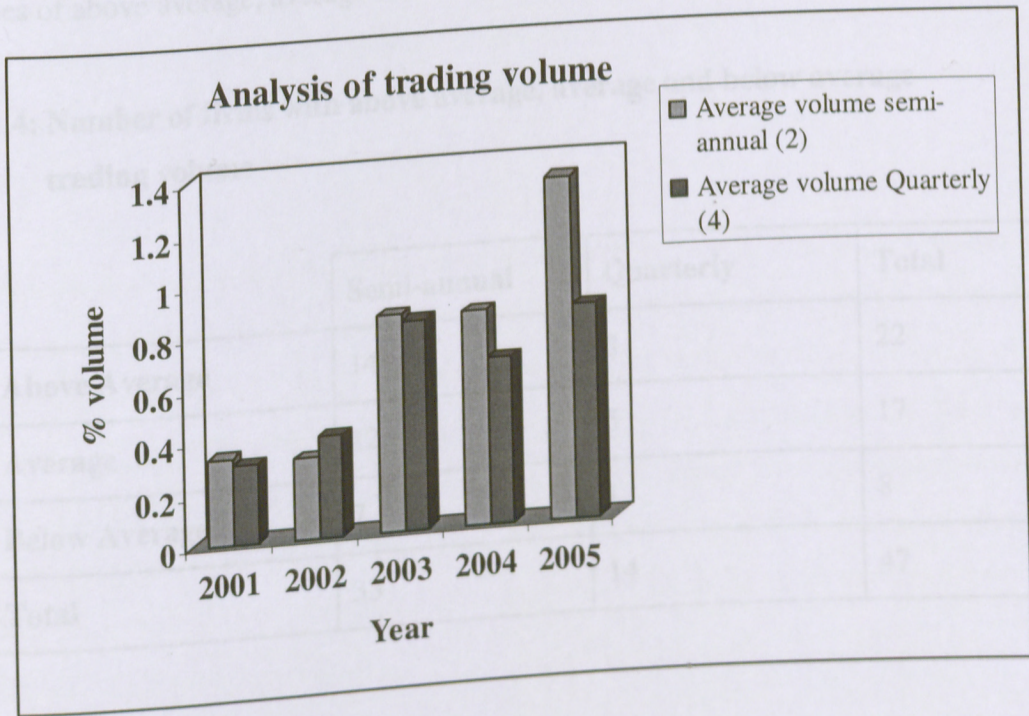
A similar analysis was done for the trading volume as had been done for returns. The total daily trading volume was computed for each month and an annual average calculated. Appendices V and VI show this information as average volume of shares traded for semi annual and quarterly reporting firms respectively. The firms were then grouped into semi-annual and quarterly frequencies and the information tabulated as follows:

Table 1.3: Average annual trading volume for semi-annual and quarterly reporting firms

	2001	2002	2003	2004	2005
Average volume semi-annual (2)	0.33	0.31	0.84	0.83	1.33
Average volume Quarterly (4)	0.30	0.39	0.81	0.64	0.83

The above table shows the percentage of shares traded in each of the five years for the two categories of frequencies. The semi-annual reporting firms reported a higher percentage in most of the years except in 2002. This indicated a weak relationship between trading volume and reporting frequency.

Graph 1.2: Comparison of annual average trading volume for semi-annual with quarterly reporting firms.



The results above indicate that the level of financial disclosure have a weak relationship with trading volume. The semi-annual reporting firms had the highest trading volume from 2003 to 2005 compared to quarterly reporting firms. Some of the firms that traded highest number of shares in the semi-annual category included, Mumias Sugar Company, CMC Holdings, Uchumi Supermarkets, Kenya Power & Lighting Company and Athi River Mining. In the quarterly reporting category, the following firms had the highest number of shares; Kenya Airways, Kenya Commercial Bank, Pan Africa Insurance, East African Cables and NIC Bank.

A further investigation into the nature of the relationship was conducted through the coefficient of correlation. This involved the classifying the average volume as the dependent variable (Y) and the frequency as the independent variable (X). The Pearson's Product Moment Correlation, r , value obtained was + 0.7269 (See appendix VII). This showed that there is a high degree of positive correlation between the frequency of financial disclosure and trading volumes of firms quoted at the NSE.

Finally a test of significance, Chi square test, was conducted. To perform the test, average trading volumes for semi annual and quarterly reporting firms were tabulated in three categories of above average, average and below average as follows;

Table 1.4: Number of firms with above average, average and below average trading volume

	Semi-annual	Quarterly	Total
Above Average	14	8	22
Average	12	5	17
Below Average	7	1	8
Total	33	14	47

Taking the null hypothesis as that there is no significant difference in the trading volumes of firms reporting on quarterly and semi annual basis. The chi-square value calculated was 1.60 whereas the critical value for 2 degrees of freedom at 5% level of significance was 5.991. The calculated value being less than the critical value which means that the null hypothesis is accepted.

The small number of firms reporting on quarterly basis at the NSE could have influenced the chi square results. Currently only 14 out of 50 companies quoted at the Nairobi Stock Exchange make financial disclosures on quarterly basis.

4.4: Summary

To achieve the first objective, security returns were analysed based on the frequency of financial disclosures. The results revealed that there is a low degree of correlation between reporting frequency and security returns. Firms that reported quarterly had higher returns throughout the study period.

As for the second objective, the analysis showed that there was a strong relationship between the level of reporting frequency and trading volume of companies quoted at the Nairobi Stock Exchange. In 2001, firms reporting on semi annual basis registered higher trading volume. In 2002, firms on quarterly basis registered higher trading volumes. From the year 2003 to 2005, firms that reported on semi annual basis registered higher trading volumes compared to firms that reported on quarterly basis. This can be attributed to the fact that most of the companies quoted at the NSE make semi annual financial disclosures.

CHAPTER FIVE

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Conclusion

The results of the study showed that there is a weak relationship between returns and frequency of financial disclosures. The results contradict the findings of Bushee and Noe (2000) that stated companies which improve their disclosure practices tend to register increases in their stock prices, hence increasing their security returns. Their study provided evidence on the impact of corporate disclosure practices on the composition of a firm's institutional investor base and the volatility of its stock price. Thus, this study has important implications for firms contemplating changes in their disclosure practices.

Specifically, managers faced with decisions about whether to change their firms' disclosure practices must weigh any potential benefits of improved disclosure against the potential cost of attracting investors that exacerbate stock return volatility. Healy et al (1999) found that increased disclosure leads to positive revisions to share valuation, enhanced market liquidity, and increased analyst and institutional interest in the stock. Gelb and Strawser (2001) observed that many firms recognize the importance of providing information to shareholders and present more informative disclosures in an effort to satisfy shareholder's needs and this translates into better performance of the firms share prices in the market. However the findings of this study show that improved financial disclosure practices may not necessarily lead to increased security returns.

The period under investigation in this study was only five years compared to fourteen years that were investigated by Bushee and Noe (2000). At the same time, Kenya had been in an economic recession between 1990 and 2002. Economic recovery began in 2003 which clearly explains why both the returns and trading volumes were highest in this year. The above factors may have affected the overall results of this particular study.

As for the second objective, the analysis revealed that there is a strong relationship between frequency of financial disclosures and trading volume. Hence as the level of financial disclosure frequency increased firms were likely to realise increased volume of shares traded at the NSE. The results of this particular study agree with the findings of Lobo and Tung (1997), in which they observed that trading volumes around quarterly announcements is higher. They further observed that compared with annual accounting information, quarterly accounting information is more timely and thus more relevant. They concluded that quarterly reporting arouses a lot of investor interest which translates to higher trading volume and higher share prices. Their conclusions are therefore in agreement with the findings of this study.

In conclusion therefore, we can say that the financial disclosure frequency has a strong relationship with trading volume and firms wishing to increase their reporting frequency may benefit a lot in terms of increased trading volumes. However it is upon management to strike a balance between the costs associated with frequent reporting and expected benefits.

5.2 Limitations of the study

The data used for the study was for only five years, which included some data relating to years 2001 and 2002 when the NSE was not performing well due to decline in gross domestic product. The companies listed at the NSE kept on changing from time to time and some new companies were getting listed while others were delisted. This also affected the study. Firms such as Hutchings Biemer, African Lakes Corporation and TPS Serena were suspended during the period. New entrants in the period of study included firms such as Mumias Sugar company and the standard group. The firms that were suspended or listed during the study period were identified and excluded from the sample.

5.3 Recommendations for further research

A study may be carried out in future to cover a longer period of time, say, ten years especially from 2003 onwards. About Six companies have recently joined the NSE through Initial Public Offers (IPOs). These include, Kengen, Eveready East Africa, Access Kenya, Scangroup, Kenya Reinsurance and Equity Bank. This means that future researchers may have more data on each of the two categories of reporting frequencies.

Further research may also be carried out to investigate the relationship between frequency of financial disclosures and the cost of capital.

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APPENDIX I

LIST OF COMPANIES SAMPLED AT THE NSE AS AT 31ST DECEMBER, 2007

- 1 A.Baumann & Co.Ltd Ord 5.00
- 2 Athi River Mining Ord 5.00
- 3 B.O.C Kenya Ltd Ord 5.00
- 4 Bamburi Cement Ltd Ord 5.00
- 5 Barclays Bank Ltd Ord 10.00
- 6 British American Tobacco Kenya Ltd Ord 10.00
- 7 C.F.C Bank Ltd ord.5.00
- 8 Car & General (K) Ltd Ord 5.00
- 9 Carbacid Investments Ltd Ord 5.00
- 10 City Trust Ltd Ord 5.00
- 11 CMC Holdings Ltd Ord 5.00
- 12 Crown Berger Ltd Ord 5.00
- 13 Diamond Trust Bank Kenya Ltd Ord 4.00
- 14 E.A.Cables Ltd Ord 5.00
- 15 E.A.Portland Cement Ltd Ord 5.00
- 16 Eaagads Ltd Ord 1.25
- 17 Express Ltd Ord 5.00
- 18 Housing Finance Co Ltd Ord 5.00
- 19 I.C.D.C Investments Co Ltd Ord 5.00
- 20 Jubilee Insurance Co. Ltd Ord 5.00
- 21 Kakuzi Ord.5.00
- 22 Kapchorua Tea Co. Ltd Ord Ord 5.00
- 23 Kenya Airways Ltd Ord 5.00
- 24 Kenya Commercial Bank Ltd Ord 10.00
- 25 Kenya Oil Co Ltd Ord 0.50
- 26 Kenya Orchards Ltd Ord 5.00
- 27 Kenya Power & Lighting Ltd Ord 20.00
- 28 Limuru Tea Co. Ltd Ord 20.00
- 29 Marshalls (E.A.) Ltd Ord 5.00
- 30 Nation Media Group Ord. 5.00
- 31 National Bank of Kenya Ltd Ord 5.00
- 32 NIC Bank Ltd Ord 5.00
- 33 Olympia Capital Holdings ltd Ord 5.00
- 34 Pan Africa Insurance Holdings Ltd Ord 5.00
- 35 Rea Vipingo Plantations Ltd Ord 5.00

- 36 Sameer Africa Ltd Ord 5.00
- 37 Sasini Tea & Coffee Ltd Ord 5.00
- 38 Standard Chartered Bank Ltd Ord 5.00
- 39 Standard Group Ltd Ord 5.00
- 40 Total Kenya Ltd Ord 5.00
- 41 TPS Ltd Ord 5.00 (Serena)
- 42 Uchumi Supermarket Ltd Ord 5.00
- 43 Unga Group Ltd Ord 5.00
- 44 Williamson Tea Kenya Ltd Ord 5.00
- 45 East African Breweries Ltd Ord 2.00
- 46 Mumias Sugar Co. Ltd Ord 2.00
- 47 Unilever Tea Ltd Ord 10.00

APPENDIX II
ANNUAL MEAN RETURNS FOR SEMI-ANNUAL REPORTING FIRMS

	Company	Freq.	AVERAGE RETURNS					MEAN
			2001	2002	2003	2004	2005	
1	Unilever Tea Ltd Ord 10.00	2	0.01251	-0.0153	0.01979	0.04607	0.006961	0.014005821
2	Kakuzi Ord.5.00	2	-0.309	-0.0648	0.06435	0.04753	0.016333	-0.049126396
3	Rea Vipingo Plantations Ltd Ord 5.00	2	-0.0393	-0.0074	0.13498	0.05661	0.083114	0.045597876
4	Sasini Tea & Coffee Ltd Ord 5.00	2	-0.5114	-0.0062	0.05288	0.03645	0.017370	-0.082174604
5	Car & General (K) Ltd Ord 5.00	2	0	-0.0088	0.00754	0.0371	0.044222	0.016022693
6	CMC Holdings Ltd Ord 5.00	2	-0.3386	0.09989	0.12247	-0.00299	-0.003404	-0.024535112
7	Marshalls (E.A.) Ltd Ord 5.00	2	-0.0161	-0.0589	0.04879	0.06118	0.055059	0.018000902
8	Nation Media Group Ord. 5.00	2	-0.3386	0.06567	0.06261	0.00552	0.011245	-0.038705353
9	TPS Ltd Ord 5.00 (Serena)	2	0.0947	0.0119	0.06161	0.05106	0.052195	0.054293733
10	Uchumi Supermarket Ltd Ord 5.00	2	-0.0941	-0.0186	0.00286	-0.0296	-0.001609	-0.028212888
11	Athi River Mining Ord 5.00	2	0.24516	0.02917	0.14277	-0.02629	0.084590	0.095082716
12	B.O.C Kenya Ltd Ord 5.00	2	-0.3218	0.02105	0.12248	-0.01755	0.031754	-0.032807802
13	Bamburi Cement Ltd Ord 5.00	2	-0.5228	0.09684	0.09401	-0.0086	0.035659	-0.060979442
14	British American Tobacco Kenya Ltd Or	2	-0.0292	0.01933	0.1381	-0.01761	0.005109	0.023147977
15	Carbacid Investments Ltd Ord 5.00	2	0.0002	0.0862	0.09309	0.01768	0.023770	0.044187364
16	Crown Berger Ltd Ord 5.00	2	-0.182	0.1058	0.16822	-0.01454	0.016510	0.018788855
17	Olympia Capital Holdings ltd Ord 5.00	2	-0.0941	-0.0186	0.00286	0.0038	0.025596	-0.016091938
18	E.A.Portland Cement Ltd Ord 5.00	2	0.56542	0.01482	0.14587	-0.01252	0.084442	0.159607197
19	Sameer Africa Ltd Ord 5.00	2	-0.0186	0.00197	0.01657	0.01454	0.053724	0.013639084
20	Kenya Oil Co Ltd Ord 0.50	2	-0.0137	0.04228	0.1294	0.04027	0.066944	0.053037694
21	Mumias Sugar Co. Ltd Ord 2.00	2	0.00133	-0.0235	0.02251	0.11075	0.112490	0.044713963
22	Kenya Power & Lighting Ltd Ord 20.00	2	-0.4752	-0.0073	0.13719	0.06649	0.044367	-0.046893341
23	Total Kenya Ltd Ord 5.00	2	-0.6191	0.02929	0.05162	-0.00208	0.016313	-0.104785862
24	Unga Group Ltd Ord 5.00	2	-0.2652	-0.0236	0.1165	-0.02552	0.058982	-0.027770374
25	A.Baumann & Co.Ltd Ord 5.00	2	-0.1188	-0.0155	0.03152	0.00035	0.036831	-0.01313397
26	City Trust Ltd Ord 5.00	2	-0.0272	0.00411	0.06499	0.11063	0.023471	0.035195235
27	Eaagads Ltd Ord 1.25	2	-0.033	-0.0071	0.0043	-0.00463	0.004902	-0.007105346
28	Express Ltd Ord 5.00	2	-0.8557	-0.0024	0.02459	-0.00526	0.066604	-0.154420701
29	Williamson Tea Kenya Ltd Ord 5.00	2	4.29499	-0.0225	0.06068	0.01672	0.011145	0.872216404
30	Kapchorua Tea Co. Ltd Ord Ord 5.00	2	-0.0693	3E-04	-0.0165	-0.00084	0.058560	-0.005552656
31	Kenya Orchards Ltd Ord 5.00	2	0.06	0	0	-0.02358	0.023949	0.012072884
32	Limuru Tea Co. Ltd Ord 20.00	2	-0.3455	0	-0.0489	0.08543	0.000522	-0.061676994
33	Standard Group Ltd Ord 5.00	2	0.47501	0.04443	0.14321	0.02521	0.004689	0.138509471
	MEAN		0.00336	0.01129	0.06736	0.01945	0.035527	0.027398397

APPENDIX III

ANNUAL MEAN RETURNS FOR SHARES FOR QUARTERLY REPORTING FIRMS

	COMPANY	Freq.	2001	2002	2003	2004	2005	MEAN
1	Kenya Airways Ltd Ord 5.00	4.00	0.049089382	-0.000850243	0.0424506	0.062865227	0.138031628	0.058317318
2	Barclays Bank Ltd Ord 10.00	4.00	0.207181723	0.041997605	0.09279182	-0.014304715	0.028501678	0.071233622
3	C.F.C Bank Ltd ord.5.00	4.00	-0.09486891	0.006946423	0.1432608	0.055436378	0.028844692	0.027923877
4	Diamond Trust Bank Kenya Ltd Ord 4.00	4.00	-0.294700448	0.022375682	0.10196008	0.030452603	0.024378741	-0.023106668
5	Housing Finance Co Ltd Ord 5.00	4.00	-0.299744823	0.047691655	0.05504082	0.001293364	0.054110795	-0.028321638
6	I.C.D.C Investments Co Ltd Ord 5.00	4.00	-0.096863603	-0.009913774	0.07741082	-0.00903019	0.021750029	-0.003329343
7	Jubilee Insurance Co. Ltd Ord 5.00	4.00	-0.040359712	0.011916949	0.11884176	0.014021893	0.030401352	0.026964448
8	Kenya Commercial Bank Ltd Ord 10.00	4.00	-0.315607893	0.01882426	0.0967502	0.034154481	0.046023629	-0.023971064
9	National Bank of Kenya Ltd Ord 5.00	4.00	0.298136606	0.017799095	0.10963402	0.074361482	0.045279931	0.109042226
10	NIC Bank Ltd Ord 5.00	4.00	-0.021484522	0.036205767	0.05980522	0.023497608	0.010336748	0.021672164
11	Pan Africa Insurance Holdings Ltd Ord 5.00	4.00	0.234073887	-0.032683512	0.10767385	0.007254449	0.062972112	0.075858158
12	Standard Chartered Bank Ltd Ord 5.00	4.00	0.149884315	0.030927905	0.09091357	-0.027480533	0.01553335	0.051955721
13	E.A.Cables Ltd Ord 5.00	4.00	0.238125504	0.009651435	0.04616733	0.148682558	0.104349409	0.109395246
14	East African Breweries Ltd Ord 2.00	4.00	0.139752591	0.050291175	0.10965961	-0.065759281	0.032335645	0.053255949
	MEAN		0.010901007	0.017941459	0.08945432	0.02396038	0.045917839	0.037635001

APPENDIX IV

COEFFICIENT OF CORRELATION BETWEEN REPORTING FREQUENCY AND MEAN RETURNS

	Frequency	Mean returns			
	X	Y	XY	X ²	Y ²
Company name					
1 Unilever Tea Ltd Ord 10.00	2	0.0140	0.028011642	4	0.000196163
2 Kakuzi Ord.5.00	2	-0.0491	-0.09825279	4	0.002413403
3 Rea Vipingo Plantations Ltd Ord 5.00	2	0.0456	0.091195753	4	0.002079166
4 Sasini Tea & Coffee Ltd Ord 5.00	2	-0.0822	-0.16434921	4	0.006752666
5 Car & General (K) Ltd Ord 5.00	2	0.0160	0.032045386	4	0.000256727
6 CMC Holdings Ltd Ord 5.00	2	-0.0245	-0.04907022	4	0.000601972
7 Marshalls (E.A.) Ltd Ord 5.00	2	0.0180	0.036001804	4	0.000324032
8 Nation Media Group Ord. 5.00	2	-0.0387	-0.07741071	4	0.001498104
9 TPS Ltd Ord 5.00 (Serena)	2	0.0543	0.108587467	4	0.002947809
10 Uchumi Supermarket Ltd Ord 5.00	2	-0.0282	-0.05642578	4	0.000795967
11 Athi River Mining Ord 5.00	2	0.0951	0.190165431	4	0.009040723
12 B.O.C Kenya Ltd Ord 5.00	2	-0.0328	-0.0656156	4	0.001076352
13 Bamburi Cement Ltd Ord 5.00	2	-0.0610	-0.12195888	4	0.003718492
14 British American Tobacco Kenya Ltd Ord 10.00	2	0.0231	0.046295955	4	0.000535829
15 Carbacid Investments Ltd Ord 5.00	2	0.0442	0.088374728	4	0.001952523
16 Crown Berger Ltd Ord 5.00	2	0.0188	0.03757771	4	0.000353021
17 Olympia Capital Holdings Ltd Ord 5.00	2	-0.0161	-0.03218388	4	0.00025895
18 E.A.Portland Cement Ltd Ord 5.00	2	0.1596	0.319214395	4	0.025474457
19 Sameer Africa Ltd Ord 5.00	2	0.0136	0.027278169	4	0.000186025
20 Kenya Oil Co Ltd Ord 0.50	2	0.0530	0.106075389	4	0.002812997
21 Mumias Sugar Co. Ltd Ord 2.00	2	0.0447	0.089427925	4	0.001999338
22 Kenya Power & Lighting Ltd Ord 20.00	2	-0.0469	-0.09378668	4	0.002198985
23 Total Kenya Ltd Ord 5.00	2	-0.1048	-0.20957172	4	0.010980077
24 Unga Group Ltd Ord 5.00	2	-0.0278	-0.05554075	4	0.000771194
25 A.Baumann & Co.Ltd Ord 5.00	2	-0.0131	-0.02626794	4	0.000172501
26 City Trust Ltd Ord 5.00	2	0.0352	0.070390469	4	0.001238705
27 Eaagads Ltd Ord 1.25	2	-0.0071	-0.01421069	4	5.04859E-05
28 Express Ltd Ord 5.00	2	-0.1544	-0.3088414	4	0.023845753
29 Williamson Tea Kenya Ltd Ord 5.00	2	0.8722	1.744432809	4	0.760761456
30 Kapchorua Tea Co. Ltd Ord Ord 5.00	2	-0.0056	-0.01110531	4	3.0832E-05
31 Kenya Orchards Ltd Ord 5.00	2	0.0121	0.024145768	4	0.000145755
32 Limuru Tea Co. Ltd Ord 20.00	2	-0.0617	-0.12335399	4	0.003804052
33 Standard Group Ltd Ord 5.00	4	0.1385	0.277018943	4	0.019184874
34 Kenya Airways Ltd Ord 5.00	4	0.0583	0.233269272	16	0.00340091
35 Barclays Bank Ltd Ord 10.00	4	0.0712	0.284934486	16	0.005074229
36 C.F.C Bank Ltd ord.5.00	4	0.0279	0.111695509	16	0.000779743
37 Diamond Trust Bank Kenya Ltd Ord 4.00	4	-0.0231	-0.09242667	16	0.000533918
38 Housing Finance Co Ltd Ord 5.00	4	-0.0283	-0.11328655	16	0.000802115
39 I.C.D.C Investments Co Ltd Ord 5.00	4	-0.0033	-0.01331737	16	1.10845E-05
40 Jubilee Insurance Co. Ltd Ord 5.00	4	0.0270	0.107857792	16	0.000727081
41 Kenya Commercial Bank Ltd Ord 10.00	4	-0.0240	-0.09588426	16	0.000574612
42 National Bank of Kenya Ltd Ord 5.00	4	0.1090	0.436168905	16	0.011890207
43 NIC Bank Ltd Ord 5.00	4	0.0217	0.086688655	16	0.000469683
44 Pan Africa Insurance Holdings Ltd Ord 5.00	4	0.0759	0.303432631	16	0.00575446
45 Standard Chartered Bank Ltd Ord 5.00	4	0.0520	0.207822883	16	0.002699397
46 E.A.Cables Ltd Ord 5.00	4	0.0520	0.207822883	16	0.002699397
47 East African Breweries Ltd Ord 2.00	4	0.1094	0.437580986	16	0.01196732
	122	1.43103710991	3.915854	356	0.935980341
	ΣX	ΣY	ΣXY	ΣX^2	ΣY^2

$$r = \frac{\Sigma XY}{\sqrt{(\Sigma X^2)(\Sigma Y^2)}}$$

0.21452

Pearson's Product Moment Correlation r =

APPENDIX V

ANNUAL AVERAGE TRADING VOLUMES FOR SEMI-ANNUAL REPORTING FIRMS

			2001	2002	2003	2004	2005	AVERAGE VOL.
	Company	Frequency						
			2001	2002	2003	2004	2005	AVERAGE VOL.
	1 Unilever Tea Kenya Ltd Ord 10.00	2	0.045272	0.029383	0.065624	0.099387	0.110728	2.801369934
	2 Kakuzi Ord.5.00	2	0.038438	0.610477	0.720421	1.429587	0.796819	2.004660443
	3 Rea Vipingo Plantations Ltd Ord 5.00	2	0.145623	0.190946	0.961244	1.028419	2.009445	1.535025072
	4 Sasini Tea & Coffee Ltd Ord 5.00	2	0.744974	0.987723	0.91918	0.846709	1.285951	1.442203216
	5 Car & General (K) Ltd Ord 5.00	2	0.001122	0.003665	0.077569	0.038241	0.084448	1.265866614
	6 CMC Holdings Ltd Ord 5.00	2	0.154654	0.927625	4.562484	1.078699	3.299841	1.186839635
	7 Marshalls (E.A.) Ltd Ord 5.00	2	0.045032	0.011291	0.032213	0.343226	0.344096	1.107161189
	8 Nation Media Group Ord. 5.00	2	0.353028	0.544903	0.806786	0.673632	0.628444	0.987256903
	9 Tourism Promotion Services Ltd Ord	2	0.144036	0.073357	0.493365	0.255086	0.298867	0.956907305
	10 Uchumi Supermarket Ltd Ord 5.00	2	0.621805	0.68405	0.866903	1.328468	4.173899	0.867135699
	11 Athi River Mining Ord 5.00	2	0.242687	0.244826	2.977296	1.231625	1.632900	0.866256202
	12 B.O.C Kenya Ltd Ord 5.00	2	0.242283	0.480396	0.811361	0.47673	0.410802	0.823543157
	13 Bamburi Cement Ltd Ord 5.00	2	0.095535	0.142543	0.294707	0.18348	0.276922	0.785052267
	14 British American Tobacco Kenya Ltd	2	0.084699	0.237536	1.948093	0.23597	0.367533	0.750894221
	15 Carbacid Investments Ltd Ord 5.00	2	3.070424	0.543437	0.530019	0.48312	0.309288	0.719148506
	16 Crown Berger Ltd Ord 5.00	2	0.102974	1.089981	1.665117	1.46760	1.210136	0.629863438
	17 Olympia Capital Holdings Ltd Ord 5.00	2	0.095473	0.050829	0.099327	0.76048	2.919157	0.609411984
	18 E.A.Portland Cement Ltd Ord 5.00	2	0.155691	0.00616	0.263506	0.11336	0.334484	0.601358423
	19 Sameer Africa Ltd Ord 5.00	2	0.156735	0.067758	1.157084	0.13469	1.302237	0.574767397
	20 Kenya Oil Co Ltd Ord 5.00	2	0.148449	0.112419	0.261651	0.38308	0.725772	0.563701391
	21 Mumias Sugar Co. Ltd Ord 2.00	2	0.023798	0.996654	1.596334	5.25914	6.130921	0.484313926
	22 Kenya Power & Lighting Ltd Ord 20.0	2	0.259538	0.38459	2.497126	2.05537	2.014395	0.479666933
	23 Total Kenya Ltd Ord 5.00	2	0.078062	0.082059	0.696752	1.02758	1.162611	0.395640031
	24 Unga Group Ltd Ord 5.00	2	0.562268	0.623774	1.146399	0.67757	1.321273	0.326274352
	25 A.Baumann & Co.Ltd Ord 5.00	2	0.563684	0.211489	0.448614	0.608507	0.566041	0.252942207
	26 City Trust Ltd Ord 5.00	2	0.131852	0.066342	0.227592	1.345332	1.983352	0.198637882
	27 Eaagads Ltd Ord 1.25	2	0.003295	0.004765	0.059729	0.003417	0.44433	0.174639333
	28 Express Ltd Ord 5.00	2	0.095677	0.181192	0.07885	1.388264	4.19022	0.15517158
	29 George Williamson Kenya Ltd Ord 5.0	2	0.326454	0.065825	0.409406	0.58805	0.58846	0.148745711
	30 Kapchorua Tea Co. Ltd Ord Ord 5.00	2	0.013789	0.270687	0.195845	0.037406	0.22600	0.103106588
	31 Kenya Orchards Ltd Ord 5.00	2	0.001689	0	0	0.230009	0.00319	0.070078704
	32 Limuru Tea Co. Ltd Ord 20.00	2	1.556459	0.214242	0.277778	1.340556	0.72868	0.046978311
	33 Standard Newspapers Group Ord 5.0	2	0.515502	0.033848	0.450923	0.284747	1.86430	0.041008997
	Average Trading volume		0.327909	0.308326	0.836342	0.83144	1.325623	0.725928108

APPENDIX VI

ANNUAL AVERAGE TRADING VOLUME FOR QUARTERLY REPORTING FIRMS							
Company	Frequency	2001	2002	2003	2004	2005	AVERAGE VOL.
1 Barclays Bank Ltd Ord 10.00	4	0.26	0.18	0.71	0.45	0.45	1.18
2 C.F.C Bank Ltd ord.5.00	4	0.04	0.08	0.15	0.22	0.18	1.07
3 Diamond Trust Bank Kenya Ltd Ord 4.	4	0.33	0.16	0.52	0.66	0.60	0.71
4 Housing Finance Co Ltd Ord 5.00	4	0.25	0.53	0.68	0.54	1.20	0.70
5 I.C.D.C Investments Co Ltd Ord 5.00	4	0.74	0.46	0.56	0.36	0.66	0.67
6 Jubilee Insurance Co. Ltd Ord 5.00	4	0.26	0.39	0.57	0.33	0.49	0.64
7 Kenya Commercial Bank Ltd Ord 10.00	4	0.51	0.91	1.54	0.97	1.42	0.62
8 National Bank of Kenya Ltd Ord 5.00	4	0.07	0.12	0.69	0.59	0.94	0.56
9 NIC Bank Ltd Ord 5.00	4	0.44	0.85	1.04	0.62	0.41	0.48
10 Pan Africa Insurance Ltd Ord 5.00	4	0.01	0.14	1.04	0.97	1.40	0.45
11 Standard Chartered Bank Ltd Ord 5.00	4	0.25	0.10	0.35	0.25	0.30	0.41
12 E.A.Cables Ltd Ord 5.00	4	0.08	0.46	0.22	1.06	1.70	0.41
13 East African Breweries Ltd Ord 10.00	4	0.59	0.59	0.66	0.60	0.64	0.25
14 Kenya Airways Ltd Ord 5.00	4	0.35	0.42	2.56	1.34	1.22	0.14
Average Trading volume		0.30	0.39	0.81	0.64	0.83	0.59

APPENDIX VII

COEFFICIENT OF CORRELATION BETWEEN REPORTING FREQUENCY AND AVERAGE TRADING VOLUME

	Frequency	Average trad. Vol.			
Company name	X	Y	XY	X ²	Y ²
1 Unilever Tea Kenya Ltd Ord 10.00	2	0.070079	0.14016	4	0.004911
2 Kakuzi Ord.5.00	2	0.719149	1.43830	4	0.517175
3 Rea Vipingo Plantations Ltd Ord 5.00	2	0.867136	1.73427	4	0.751924
4 Sasini Tea & Coffee Ltd Ord 5.00	2	0.956907	1.91381	4	0.915672
5 Car & General (K) Ltd Ord 5.00	2	0.041009	0.08202	4	0.001682
6 CMC Holdings Ltd Ord 5.00	2	2.004660	4.00932	4	4.018663
7 Marshalls (E.A.) Ltd Ord 5.00	2	0.155172	0.31034	4	0.024078
8 Marshalls (E.A.) Ltd Ord 5.00	2	0.601358	1.20272	4	0.361632
8 Nation Media Group Ord. 5.00	2	0.252942	0.50588	4	0.063980
9 Tourism Promotion Services Ltd Ord 5.00 (Serena)	2	1.535025	3.07005	4	2.356302
10 Uchumi Supermarket Ltd Ord 5.00	2	1.265867	2.53173	4	1.602418
11 Athi River Mining Ord 5.00	2	0.484314	0.96863	4	0.234560
12 B.O.C Kenya Ltd Ord 5.00	2	0.198638	0.39728	4	0.039457
13 Bamburi Cement Ltd Ord 5.00	2	0.574767	1.14953	4	0.330358
14 British American Tobacco Kenya Ltd Ord 10.00	2	0.987257	1.97451	4	0.974676
15 Carbacid Investments Ltd Ord 5.00	2	1.107161	2.21432	4	1.225806
16 Crown Berger Ltd Ord 5.00	2	0.785052	1.57010	4	0.616307
17 Olympia Capital Holdings Ltd Ord 5.00	2	0.174639	0.34928	4	0.030499
18 E.A.Portland Cement Ltd Ord 5.00	2	0.563701	1.12740	4	0.317759
19 Sameer Africa Ltd Ord 5.00	2	0.326274	0.65255	4	0.106455
20 Kenya Oil Co Ltd Ord 5.00	2	2.801370	5.60274	4	7.847674
21 Mumias Sugar Co. Ltd Ord 2.00	2	1.442203	2.88441	4	2.079950
22 Kenya Power & Lighting Ltd Ord 20.00	2	0.609412	1.21882	4	0.371383
23 Total Kenya Ltd Ord 5.00	2	0.866256	1.73251	4	0.750400
24 Unga Group Ltd Ord 5.00	2	0.479667	0.95933	4	0.230080
25 A.Baumann & Co.Ltd Ord 5.00	2	0.750894	1.50179	4	0.563842
26 City Trust Ltd Ord 5.00	2	0.103107	0.20621	4	0.010631
27 Eaagads Ltd Ord 1.25	2	1.186840	2.37368	4	1.408588
28 Express Ltd Ord 5.00	2	0.395640	0.79128	4	0.156531
29 George Williamson Kenya Ltd Ord 5.00	2	0.148746	0.29749	4	0.022125
30 Kapchorua Tea Co. Ltd Ord Ord 5.00	2	0.046978	0.09396	4	0.002207
31 Kenya Orchards Ltd Ord 5.00	2	0.823543	1.64709	4	0.678223
32 Limuru Tea Co. Ltd Ord 20.00	2	0.629863	1.25973	4	0.396728
33 Standard Newspapers Group Ord 5.00	4	0.409291	1.63716	16	0.167519
34 Barclays Bank Ltd Ord 10.00	4	0.135698	0.54279	16	0.018414
35 C.F.C Bank Ltd ord.5.00	4	0.452646	1.81058	16	0.204889
36 Diamond Trust Bank Kenya Ltd Ord 4.00	4	0.641620	2.56648	16	0.411676
37 Housing Finance Co Ltd Ord 5.00	4	0.558027	2.23211	16	0.311394
38 I.C.D.C Investments Co Ltd Ord 5.00	4	0.409108	1.63643	16	0.167369
39 Jubilee Insurance Co. Ltd Ord 5.00	4	1.068517	4.27407	16	1.141729
40 Kenya Commercial Bank Ltd Ord 10.00	4	0.482708	1.93083	16	0.233007
41 National Bank of Kenya Ltd Ord 5.00	4	0.674171	2.69669	16	0.454507
42 NIC Bank Ltd Ord 5.00	4	0.712834	2.85134	16	0.508132
43 Pan Africa Insurance Ltd Ord 5.00	4	0.252166	1.00866	16	0.063588
44 Standard Chartered Bank Ltd Ord 5.00	4	0.703863	2.81545	16	0.495423
45 E.A.Cables Ltd Ord 5.00	4	0.615492	2.46197	16	0.378831
46 East African Breweries Ltd Ord 10.00	4	1.177987	4.71195	16	1.387653
47 Kenya Airways Ltd Ord 5.00	122	32.2498	81.08777	356	34.956807
	ΣX	ΣY	ΣXY	ΣX^2	ΣY^2

$$r = \frac{\Sigma XY}{\sqrt{(\Sigma X^2)(\Sigma Y^2)}}$$

Pearson's Product Moment Correlation r =

0.7269