# THE EFFECT OF VOLUNTARY DISCLOSURES ON THE STOCK RETURNS OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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## **DECLARATION**

| I declare that this research project is my original work and has never been presented |
|---|
| for the award of a degree in any other institution or university.                     |
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## **DEDICATION**

I dedicate this work to the Almighty God and to my family; my dear mums Jane Wanjira Maina and Faith Kabari Maina and dads Francis Maina Ndugire and Rev. Julius Maina Mwangi for their encouragement and support throughout my studies.

#### **ABSTRACT**

In every organisation, managers act as stewards of the company resources for the owners of the company. As such they report regularly to the owners on the company's performance disclosing the statutorily required information as regulated by various authoritative bodies. Managers in their reporting disclose information beyond requirements such as generally accepted accounting principles where the information is believed to be relevant to the decision-making of users of the company's annual reports. Voluntary disclosure is carried out by many companies, although the extent and type of voluntary disclosure differs by geographic region, industry, and company size. This study sought to establish the effect of voluntary disclosures on stock returns of firms listed at the Nairobi Securities Exchange. Through content analysis of annual audited financials reports of companies in the banking and construction and allied industries, the study sought to establish the effect of voluntary disclosures such as; business data, analysis of business data, forward-looking information and information about management and shareholders, background about the company and information about intangible assets on stock returns. The results obtained from the model indicate that voluntary disclosure of firm's information has positive impact on stock return. Disclosure on business data, forward looking information, background about the company and information on intangible assets not disclosed in the financial statements positively impact on the firm's stock returns. However, information on management analysis of business data and information about management and shareholders has negative implication on company's stock return.

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#### LIST OF ABBREVIATIONS

CMA Capital Market Authority

CSR Corporate Social Responsibility

EMH Efficient Market Hypothesis

FASB Financial Accounting Standards Board

FISD Financial Information Services Division

FTSE Financial Times Stock Exchange Index

NASI NSE All Share Index

NSE Nairobi Securities Exchange

SEC Securities and Exchange Commission

BDT Business Data

MABDT Management Analysis of Business Data

FLIF Forward Looking Information

IMSH Information about Management and Shareholders

BACP Background about the Company

INTANG Information about Intangible Assets

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Background of the Study

For any informed financial decision to be made by an investor, information is required. The main sources of such information include the financial statements of the company. Prior research shows that annual report is the main source of mandatory and voluntary corporate disclosures (e.g., Neu et al., 1998; Rockness, 1985; Wiseman, 1982). Companies listed in the securities exchange market mainly make voluntary disclosures in their annual reports to attract foreign investors and also encourage local investors to trade in their shares in order to enhance the company's return.

Empirical evidences suggest that increased information disclosure reduces a firm's cost of capital by reducing information asymmetry (Botosan, 1997, 2000). Also with the information provided, the investors are able to predict return on investment given the trends in the market. The stock returns of an investor's investments in the stock market are affected by the financial information provided by the management (Guillaume, 2007).

#### 1.1.1 Voluntary Disclosure

Voluntary disclosure is the provision of information by a company's management beyond requirements such as generally accepted accounting principles and Securities and Exchange Commission (SEC) rules, where the information is believed to be relevant to the decision-making of users of the company's annual reports (FASB,2001). Voluntary disclosure is carried out by many companies, although the

extent and type of voluntary disclosure differs by geographic region, industry, and company size (Ho & Wong, 2001). The area of voluntary disclosure has been identified as a potential research in financial reporting (Ho & Wong, 2001).

The Financial Accounting Standards Board (FASB) classified voluntary disclosures into 6categories as tabulated in Appendix I.

Meek, Roberts and Gray (1995) classified them into three major groups; strategic, nonfinancial and financial information. According to Meek, Roberts and Gray (1995) voluntary disclosures can include strategic information such as company characteristics and strategy, nonfinancial information such socially responsible practices, and financial information such as stock price information.

#### 1.1.2 Costs and Benefits of Voluntary Disclosure

According to the FASB report of 2001 the main potential benefits of informative voluntary disclosures are believed to be to the investors, the company and the economy. The investors benefit from the reduced likelihood that they will misallocate their capital. Companies (and their owners) benefit from a lower average cost of capital, enhanced credibility and improved investor relations, access to more liquid markets with narrower price changes between transactions, the likelihood that they will make better investment decisions (as users of other companies' financial statements) and lesser danger of litigation alleging inadequate informative disclosure and better defenses when such suits are brought. The economy benefits from more effective allocation of capital, the investment effect of a lower cost of capital and more liquid capital markets. Voluntary disclosure may also reduce conflict of interest in a widely held firm (Chau & Gray, 2002).

Voluntary disclosure is also affected by shareholder demands; for example 60 percent of the companies on the Standard & Poor's 100 (a stock market index of United States stocks) adopted voluntary disclosure policies in response to shareholder demand for information on corporate political spending (Bebchuk, Lucian A.; Jackson Jr., Robert 2012). Foster (1986) argues that demand for financial reporting and disclosure arises from information asymmetry and agency conflicts between managers and outside investors.

Firms, however, balance the benefits of voluntary disclosure against the costs, which may include the cost of procuring the information to be disclosed, and decreased competitive advantage (FASB, 2001), Meek, Roberts & Gray, 1995)

#### 1.1.3 Stock Market Returns

Stock market returns mainly relates to the price at which the shares of a certain company are trading at. According to Foster (1986) companies compete in the securities market on the types of securities offered and on the terms and expected returns from each security. According to Beaver (1998), Holthausen and Leftwich (1983) managers have better information on their firm's current and future performance than outside investors and stakeholders such as suppliers, government, financial institutions.

Disclosure strategies present potentially important means for corporate managers to report their knowledge to outside investors, even if capital markets are efficient (Healey & Palepu 1993). This will reduce the risk of miss-allocation of resources in the capital markets and the economy but the extent to which the risk is mitigated depends on credibility of the information on the firm's economy. The credibility of management disclosures is enhanced by regulators, standard setters, auditors and

other capital market intermediaries (Healy & Palepu, 2001). Also with the copying of disclosures and information passed on to the market by one company to another more information is released to the market and this reduces the conflict between managers and outside investors. Eventually this will result to market efficiency and hence value of the share reflecting the information relayed to the market (Velashani & Mehdi, 2008).

Barry & Brown (1984-1986) noted that when the disclosure is imperfect the risk of forecasting future returns is borne by the investors from their investments. If the risk is non-diversifiable then the investor will demand a higher return for the investment for bearing the information risk. Thus firms with high level of disclosures and hence a lower level of information risk have low cost of capital as opposed to the ones with lower level of disclosure.

#### 1.1.4 Effects of Voluntary Disclosure on Stock Returns

Waymire (1984) and Ajinkya & Gift (1984) posited that there are positive stock price reactions to management forecasts of earnings increases, and negative reactions to forecasts of earnings decreases. Pownall & Waymire (1989) found that the market reaction to unexpected management earnings forecasts is similar in magnitude to the reaction to unexpected earnings announcements themselves. This suggests that management forecasts have comparable credibility to audited financial information.

Trueman (1986) argued that talented managers have an incentive to make voluntary earnings forecasts to reveal their type. A firm's market value is a function of investors' perceptions of its managers' ability to anticipate and respond to future changes in the firm's economic environment.

Thus the earlier the investors infer that the manager has received information, the more favourable was their assessment of the manager's ability to anticipate future changes and the higher was the firm's market value. Managers with access to private information about the company can make reliable disclosure to the market thus optimising on the value of the firm.

Healy and Palepu (1993, 1995) hypothesized that investors' perceptions of a firm are important to corporate managers expecting to issue public debt or equity or to acquire another company in a stock transaction. Myers and Majluf (1984) pointed out that if the information asymmetry cannot be resolved, such firms will view making public equity or debt offers to be costly for existing shareholders. Thus managers can reduce information risk of their companies through relay of additional information to the investors through voluntary disclosures.

Theoretically the effect of voluntary disclosures on the value of the firm can be analysed through the agency theory and signalling theory. As a way to reduce the conflict between agents and the principal in a firm, the managers can disclose private information about the firm to the public influencing the decision of the investors. Theoretically it's expected that with the reduction of the information asymmetry investors are attracted to hold shares in a company as the investors' estimation risk is reduced by greater disclosure of the corporate information and thus lower the cost of equity.

With lower cost of equity the value of the firm is expected to be high as the two are inversely related and thus a positive relationship between voluntary disclosure and the value of the firm. Voluntary disclosure can be viewed by investors as a signal of either positive firm performance or negative firm performance. When managers

expect the firm to make a growth in their performance (profit, market share, number of product) they are expected to relay more and better information sending a signal to the market. With such signals, the investors tend to demand more of the shares and with a higher demand price also goes up. Thus with such voluntary disclosures it is expected that there was a positive relationship between the voluntary disclosure and the value of the firm as higher prices of a firm shares translates to higher value of the firm in totality.

Theoretically it is expected that more knowledgeable traders on technical analysis significantly outperform those who are less knowledgeable according to efficient market hypothesis critics. Thus, with more voluntary disclosure investors would make better estimates on share returns as they base their estimates only on publicly available information. Thus it is expected that firms which make more voluntary disclosure on their corporate information will reduce the estimation risk on the share future returns thus lowering the cost of capital. With a lower cost of capital the price of the share was higher and thus higher value of the firm.

#### 1.1.5 Nairobi Securities Exchange

Nairobi Securities Exchange (NSE) was constituted as a voluntary association of stockbrokers registered under the Societies Act in 1954. In July 2011, the Nairobi Stock Exchange Limited changed its name to the Nairobi Securities Exchange Limited. The change of name reflected the strategic plan of the Nairobi Securities Exchange to evolve into a full service securities exchange which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments.

The NSE has gone through tremendous changes over the past years. In October 2011, the Broker Back Office commenced operations. The system has the capability to

facilitate internet trading which improved the integrity of the Exchange trading systems and facilitates greater access to the securities market. Three indices are used in measuring the performance in the securities market which are NSE 20-Share Index, NSE All Share Index (NASI) and FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices.

NSE All Share Index (NASI) was introduced in 2008 as an alternative index. Its measure is an overall indicator of market performance. The Index incorporates all the traded shares of the day and its attention is therefore on the overall market capitalization rather than the price movements of select counters. In November 2011, the FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices were launched. The launch of the indices was the result of an extensive market consultation process with local asset owners and fund managers and reflects the growing interest in new domestic investment and diversification opportunities in the East African region.

As of March 2012, the Nairobi Securities Exchange became a member of the Financial Information Services Division (FISD) of the Software and Information Industry Association (SIIA). In March 2012 the delayed index values of the FTSE NSE Kenya 15 Index and the FTSE NSE Kenya 25 Index were made available on the NSE website. The new initiative gives investors the opportunity to access current information and provides a reliable indication of the Kenyan equity market's performance during trading hours.

The NSE listed companies are categorized as follows; agricultural, commercial and services, telecommunication and technology, automobile and accessories, banking, insurance, investment, manufacturing and allied, construction and allied, energy and petroleum and growth enterprise market segment with a total of 63 companies.

Companies listed in the NSE are expected to comply with the guidelines stipulated in the Capital Market Act (Cap. 485A) which enhances the corporate governance practices of listed companies. The Capital Markets Authority has developed these guidelines for good corporate governance practices by public listed companies in Kenya in response to the growing importance of governance issues both in emerging and developing economies and for promoting growth in domestic and regional capital markets. It is also 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.

Voluntary disclosures for the listed companies in the NSE are mainly for information that management believe was relevant in decision making by the users of the annual reports. This mainly include business data, analysis of business data, forward looking information, information about management and shareholders, company background and information about intangible assets.

Voluntary disclosure is carried out by many companies although the extent and type of voluntary disclosure differs by geographic region, industry, and company size (FASB, 2001). The extent of voluntary disclosure is also affected by the firm's corporate governance structure and ownership structure; in particular, research has found that top executives have a significant influence on their firms' voluntary disclosures, and that managers have unique disclosure styles related to their personal backgrounds including their career paths Eng & Mak (2003).

#### 1.2 Research Problem

In any organisation there exists a relationship between the management and the stakeholders (suppliers, shareholders, government, employees, customers and

investors). The management of any organization usually have an information advantage thus the issue of information asymmetry between managers and shareholders. Managers act as agents to the owners and mainly take advantage of their positions and enhance their personal goals at the expense of the owners. Thus with the agency conflict voluntary disclosure presents a good avenue for the application of agency theory where managers who are well informed with reliable company's private information can make communication to the market for the optimization of the firm's value.

The management of any listed company mainly communicates to the shareholders through the annual reports which are regulated by the Capital Market Authority on the nature of information to disclose. Existing literature reveals that companies with good corporate governance have resulted to better performance through attraction of cheaper capital (Zareian 2012).

According to a study done by Barako (2007), he examined the relationship between corporate governance attributes and voluntary disclosure in annual reports in Kenya's listed companies. In his study he concluded that the level of voluntary disclosure by listed companies mainly depended on the company's governance practices mainly the audit committee and board composition.

A study done by Matengo (2008) to establish the relationship between corporate governance and financial performance of banking industry in Kenya found that transparency significantly affects financial performance but disclosure did not show any significant relationship.

Ponnu & Maurice (2009) studied the relationship between corporate social responsibility (CSR) voluntary disclosure and returns on stocks traded in the Nairobi

Securities Exchange for the period 2008-2012. The study concluded that the CSR disclosure mainly involved information on community involvement and no relationship was identified to the stock returns. The study concentrated on CSR disclosure and not all forms of disclosures as classified by FASB. The study also noted that there were significant differences among various industry groupings in relation to company background and themes of CSR disclosure.

According to a study done by Asava (2013), the effects of voluntary disclosure on the stock returns of companies listed at the Nairobi Securities Exchange she concluded that there exists no relationship between voluntary disclosures and stock returns of companies listed in the NSE.

Past studies have been concentrating on studying the relationships between corporate governance and voluntary disclosures, factors influencing the extent of voluntary disclosures. Studies focused on establishing the relationships between voluntary disclosure and stock returns, Matengo (2008), Ponnu & Maurice (2009)have concentrated on CSR voluntary disclosures and corporate governance. Asava (2013) carried her study across all industries for the listed companies. From the empirical evidence there has been little study to establish the relationship between voluntary disclosures and stock returns. Also no study has been carried out on specific industries for the companies listed in the NSE. These findings therefore have led to the research question: are there effects of voluntary disclosures on the stock returns of firms listed at the Nairobi Securities Exchange?

#### 1.3 Research Objective

The objective of this study is to establish the relationship between voluntary disclosures and stock returns of companies listed at the Nairobi Securities Exchange.

#### 1.4 Value of the Study

The study is aimed at identifying whether additional disclosures made by management of companies can help investors in making their investments decisions and if it has any effects on the stock returns. The study also is aimed at enhancing the understanding of management in which forms of voluntary disclosures are relevant to the investor and the economy which will enable credible and reliable communication in their annual reports. For firms that are widely held the study is aimed at reducing the conflict of interest through better understanding of any effects that information disclosed by management affects the expectations of the investors. The study will contribute to the body of knowledge in finance on effects of voluntary disclosure on the stock market returns for companies listed in the Nairobi Securities Exchange. This will add to the extensive literature available that researchers can borrow from as a body of knowledge in finance.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This section is focused on review of various models and theories that are relevant to the study. We will review past studies and scholars literatures that have been carried out on the effects of voluntary disclosures on the stock returns. The chapter will explore various theoretical modelling and empirical studies which have been carried out by other researchers and theories on effects of voluntary disclosures and stock returns.

#### 2.2 Theoretical Framework

Information plays a key role in decision making process of the investors. Manager's disclosure of such information to the market may benefit the firm depending on the conception of the investors. The extent to which such information affects the performance of any firm depends on the efficiency of the market. According to Velashani & Mehdi (2008) information released by companies to the market reduces conflict of interest between managers and outside investors. This leads to efficiency in the market and share value reflects the information signalled.

#### 2.2.1 Random Walk Theory

Random walk is a financial theory which states that the stock market prices evolve according to a random walk and thus cannot be predicted. The theory is consistent with the efficient market hypothesis, Cootner & Paul (1964). Malkiel (1973) argues that asset prices typically exhibit signs of random walk and that one cannot

consistently outperform market averages. The theory posits that the stock price changes have the same distribution and are independent of each other thus you cannot predict future prices using past trends in price movements. Kendall (1953) suggested that the movement of shares on the stock market was random and they were as likely to go up on a certain day as they were to go down. Malkiel (1973) posits that both technical analysis and fundamental analysis are a waste of time and are unproven in outperforming the markets.

Random walk corresponds to the belief that markets are efficient and that it is not possible to beat or predict the market because stock prices reflect all available information and the occurrence of new information is random as well. The only way to beat the market is bearing additional risk.

The theory has critics who believe that the stock prices can be predicted and don't follow random walk. They believe that past prices man move in trends and can be studied and used to predict future price directions (Lo, 1999). The random walk theory starts from the assumption that major security exchanges are good examples of an efficient market. Efficient market is assumed to be one where there are several rational profit maximising investors who are actively competing with each trying to predict future market values of individual securities and where important current information is freely available to all participants (Fama, 1970). With competition, Fama puts forward the theory that the price of securities in the market will reflect both past information and any event that the market expect to take place in future. Fama argues that when investors in an efficient market compete they cause the actual price of security to wander randomly about its intrinsic value. He argued that if the variance between actual price and the intrinsic value is systematic rather than random then investors will utilize the skills and the knowledge in predicting the movement of the

actual price towards the intrinsic value. When investors try to utilize the skills they will neutralize the systematic behaviour in price series, thus the actual prices of the securities will wander randomly about the intrinsic value (Fama, 1970).

#### 2.2.2 Efficient Market Hypothesis

Efficient market hypothesis (EMH) asserts that financial markets are informationally efficient and one cannot consistently achieve returns in excess of average market returns on a risk adjusted basis given that available information at the time of investment is made (Fama,1970). Fama defined efficient financial market as one where prices of securities traded reflect available information.

The efficient market hypothesis has three assumptions which are; a large number of competing profit-maximizing participants analyse and value securities, each independently from the others, new information regarding securities comes to the market in a random fashion, the competing investors attempt to adjust security prices rapidly to reflect the new information (i.e., security prices adjust rapidly because numerous profit-maximizing investors are competing against one another).

He identified three forms of efficiency; weak form, semi-strong form and strong form. Weak form efficiency assumes that the current price of the securities fully reflect all current available information in the market. This includes historical sequence of prices, rates of return, trading volume data and other market generated data. It posits that past price and volume data have no relationship with the future direction of the securities prices. In the weak form excess returns cannot be earned in the long run by using investment strategies based on historical share prices or other historical data. Since share prices don't exhibit serial dependencies and hence no patterns to asset prices, technical analysis techniques cannot be used to achieve excess returns as the

future price movements are determined by information not contained in the price series. Semi strong efficiency assumes that share prices adjust to publicly available new information very rapidly and in unbiased manner such that no excess returns can be earned by trading on such information. Neither technical analysis nor fundamental analysis was able to produce excess returns as the security prices have factored in available market and non-market public information. The strong form efficiency assumes that share prices reflect all information public and private and no investor can earn excess returns. It assumes that the market, non-market and inside information is factored into the security prices and there is no monopoly to information in the market. It assumes that a perfect market exists and excess returns are impossible to achieve consistently.

This theory has received criticism from other researchers stating that empirical evidence exists on the impact that transaction costs have on the concept of market efficiency. They suggest that anomalies exist pertaining to market inefficiencies as a result of a cost benefit analysis made by those willing to incur the cost of acquiring the valuable information in order to trade in it. Lui (2013) pointed out that there is a difference of performance between experienced and novice traders in that those traders who are more knowledgeable on technical analysis significantly outperform those who are less knowledgeable.

#### 2.2.3 Agency Theory

According to Jensen and Meckling (1976) an agency relationship is a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. Decision making is usually delegated to the agents but usually there exists conflicts when the managers set aside the principal interest and act

on their own best interest. According to Jensen & Meckling (1976) the agency theory holds central role in in corporate governance. The theory describes the fundamental conflict between self-interested managers and owners, when the managers have control of the firm but the owners bear most of the wealth effects. Their original model described how lower managerial stakes lead to increases in non-pecuniary spending by the managers due to lack of full internalizing of the costs leading to generation of agency costs. According to Lucian & Jesse (2004) the problem arises where the two parties have different interests and asymmetric information (the agent having more information); such that the principal cannot directly ensure that the agent is always acting in its (the principal's) best interests. He noted that this particularly happens when activities that are useful to the principal are costly to the agent, and where elements of what the agent does are costly for the principal to observe. These conflicts create costs for the firm that are called agency costs and these costs can result in failure to achieve the stock price maximization objective.

Due to the information asymmetry where the managers have more relevant information about the company performance from the managers, they may advance their own interest at the expense of their principals. Thus, voluntary disclosure can act as a good opportunity for managers to disclose relevant private information about the company to the market to influence the decision of the investors and contribute to the firm value maximization. The private information could be the management analysis of business data, information about shareholders and managers and forward looking information.

#### 2.2.4 Signalling Theory

Spence (1973) proposed that two parties could get around the problem of asymmetric information by having one party send a signal that would reveal some piece of

relevant information to the other party. That party would then interpret the signal and adjust her purchasing behaviour accordingly usually by offering a higher price than if she had not received the signal. Signalling theory posits that the most profitable companies provide the market with more and better information (Verrecchia, 1983; Dye, 1985; Trueman, 1986; Jung and Kwon, 1988; Miller, 2002). Verrecchia (1983) outlined the voluntary disclosure in that managers with information about the company value being higher value than the market average valuation of all firms will disclose it credibly such that the share prices was reviewed upward while managers with information about companies value being lower than the market value will withhold the information. The silent firms are identified by investors as firms with less than average valuation and their shares are revalued downward. Any firm within the group and has good news will screen themselves out and disclose the information. The process continues until all firms have disclosed their information and valuation hierarchy identified. This principle is referred to as disclosure principle (Dye, 1985). The disclosure scenario gives insights for voluntary disclosure and to advance policy prescription. Ross (1978) used the disclosure scenario to conclude that firms should not be compelled by law to make disclosures as the managers have incentive to disclose the information through stock returns revision either upwards or downwards.

#### 2.3 Determinants of Stock Returns

Return mainly represents the reward for undertaking an investment. Stock returns represents income received on investment plus any change in market prices usually expressed as a percentage of the beginning market price of the investment. Thus stock returns are determined by ending stock price, the dividends paid and the beginning price of the stock. The formula of obtaining the return is the increase in price plus any

dividends paid, divided by the beginning price of the stock. Stock return (as a percentage) =  $((P_{1-}P_0)+D)/P_0$  where  $P_{1-}$  Ending stock price,  $P_0$  – Initial Stock Price and D- Dividends.

#### 2.4 Empirical Literature

This section will review past researches carried out in finding out the effects of voluntary disclosure on stock returns. We will make a conclusion on which disclosures have been found relevant for managers to disclose and areas of research which need more exploration for future researchers.

Amihud and Mendelson (1986) study was to show how disclosure level affects information asymmetry and hence increases stock market liquidity. They used the spread between biding and asking prices to examine the impact of liquidity on assets pricing. They claimed that the cost of equity capital is greater for securities with wider bid-ask spreads because investors demand a higher return to compensate for added transactions costs. Amihud and Mendelson also suggested that by disclosing private information, firms could reduce the adverse selection of the bid-ask spread and thereby increase their stock liquidity. Information plays a key role in the trading process and thus in the bid-ask spread. Its role is to reduce the information asymmetries among traders, and hence decreasing bid-ask spread in stock market (increasing in stock market liquidity).

Diamond and Verrecchia (1991) and Kim and Verrecchia (1994) constructed a model in which disclosure improves the future liquidity of a firm's securities by attracting increased demand from large investors, and this in turn reduces the firm's costs, with large firms benefiting the most. They affirmed that information asymmetries in the market resulted in pronounced price changes in response to changes in demand for the

stock. According to the authors, increasing public information in firm disclosures is likely to reduce the information asymmetry. Verrecchia (2001) found that firms which presented lower profitability and lower volatility in profitability across business segments were likely to provide voluntary disclosures about the performance of the respective segments.

Lang and Lundholm (1993) carried a study to find out the determinants of disclosure and analyse the relationship between disclosure, firm size and firm performance. The study was carried out on 27 industries and descriptive statistics was used in the study. They found that corporate disclosure, as measured by disclosure scores which was assigned by the Association for Investment Management and Research (AIMR) an association of financial analysts, were less positively associated with firms' stock return volatility for a sample of US firms. Lang and Lundholm (2000) examined corporate disclosure activity around seasoned equity offerings and its relationship to stock prices. They found evidence that firms increase their disclosure activity over an extended period of time (six to nine months) in advance of seasoned equity offerings, consistent with managers using disclosure to decrease information asymmetry and increase offering proceeds. Lang and Lundholm (1993) argued that the disclosures reduced the impact magnitude of news about a firm's performance, which would mitigate stock price volatility.

Welker (1995) investigated the cross sectional relationship between analysts' rating of firms' disclosures for a sample of U.S. firms provided by the Association for Investment Management and Research (AIMR) and liquidity of the market as measured by the size of proportional bid-ask spread for the years 1983 to 1990. The findings of his study demonstrated that higher disclosure policy reduces information asymmetry and hence increases liquidity in equity markets. Controlling for other

variables, Welker reported that the relative bid-ask spreads for firms with disclosure ranking in the bottom third were approximately 50 percent higher than spreads for firms with disclosure rankings in the top third. This shows that the level of increased voluntary disclosure by firms reduces the level of information asymmetry among the financial markets participants thus an association between the disclosure level and market liquidity.

Hail (2001) carried out a study to determine the impact of voluntary corporate disclosure on the expected cost of equity capital. He scaled sample firms for fiscal year 1997 based on disclosure index in three categories for calculation of disclosure quality of financial accounts such as; context and non-financial information including 10 items and totally 20 scores, procedural analysis and managerial analysis including 11 items and 20 scores, and information on value based risk and project related information including 9 items and 14 scores. He concluded that there is a negative relationship between disclosure quality and the expected cost of equity capital. He noted that increase in voluntary disclosures would reduce the cost of acquiring equity capital from capital markets. He held that increasing voluntary disclosures reduce the cost of capital since such disclosures increase the demand and liquidity of the company's stock. He posits that this reduces the cost of publicity and issuance of the stocks since investors know the firm better.

Baumann and Nier (2004) investigated the cross-sectional association between banks' long-run average stock price volatility and the long-run average level of disclosure that banks provided in their annual accounts. The authors found that banks that had high extent of voluntary information in their annual accounts showed lower measures of stock volatility than banks that disclosed less information. Consistently, Medeiros and Quinteiro (2005) found negative association between the level of accounting

disclosure and the stock return volatility on a sample of Brazilian quoted companies. The authors suggested that the disclosures were likely to be beneficial since they reduced information asymmetry between shareholders and management. Thus, it seems that increased voluntary disclosure is likely to reduce stock price volatility because of the diminution of uncertainty from an investor's estimations.

Barako (2007) carried out a study to find out the determinants of voluntary disclosure in the Kenyan companies annual reports and observed that the level of disclosure varies with the kind of industry to which a company belongs. The voluntary disclosures information examined include general and strategic, financial, forward looking and social and board information in the annual reports from the year 1992 to 2001. The findings of the study were that different factors determine voluntary disclosure of the various information categories.

He found that external audit firm is a significant predictor of financial information disclosure, but not a significant determinant of general and strategic information. He concluded that board leadership structure, foreign ownership, institutional ownership, and firm size significantly affect the level of disclosure.

Asava (2013) study was to establish the relationship between voluntary disclosure and stock returns for companies listed in the Nairobi Securities Exchange. Her study was on the NSE 20 share index and the data considered was drawn from year 2008 to 2012. The voluntary disclosures considered include trend analysis and comparison with competitors, breakdown of market share and information on new products, sales forecasts breakdown and plans for expansion and information about management and shareholders.

Descriptive study design and content analysis was used and data was analysed using statistical package for social science. In her findings no relationship exists between voluntary disclosures and the stock returns. She concluded that the relationship is neither linear nor does there exist a causation. Other factors other than voluntary disclosures do affect the stock returns. In her recommendations she noted that though no significant relationship exists between voluntary disclosure and stock returns, the relationship direction is positive though very small. The study had limitations on time of data studied, measurement of voluntary disclosure and also number of companies studied. Her recommendations were study of relationship between voluntary disclosures and stock returns in specific industries and also relationship between voluntary disclosures and cost of capital.

#### 2.5 Summary of Literature Review

From past studies carried out by Amihud and Mendelson (1986) and Welker (1995) they concluded that there exists a positive relationship between firms' disclosure and the market liquidity. Most of the evidence reveals that with more disclosure from the management, information is made available to the market participants reducing the private firm information gap between managers and investors.

Diamond and Verrecchia (1991) and Hail (2001) found a negative relationship between disclosure level and cost of equity. Lang and Lundholm (1993) and Baumann and Nier (2004) found a negative relationship between disclosure and price volatility. Barako (2007) concluded that board leadership structure, foreign ownership, institutional ownership, and firm size significantly affect the level of disclosure. Asava (2013) concluded that the relationship between voluntary disclosure and stock

returns is neither linear nor does there exist a causation but other factors other than voluntary disclosures do affect the stock returns.

From the review of the empirical studies no study has been carried out in specific industry to determine if there exists a relationship between voluntary disclosure and stock returns. The study done on specific industry was done by Baumann and Nier (2004) in the banking industry but it evaluated relationship between voluntary disclosure and price volatility but not on the stock returns. Asava (2013) found no relationship between the voluntary disclosure and stock returns a disconnect between the expected relationship as a decline in cost of equity is expected to result to an increase in value of the shares. Also with more information in the market the investors are expected to make decisions on their investment portfolios and with higher demand for the securities the price will go high.

No study has been carried out to establish the theoretically expected relationship between the voluntary disclosure and stock returns as the signalling theory and agency theory states. More knowledge is required by the investors and corporate leaders on specific industries in order to make informed decisions. With such kind of gaps in the past studies this study will focus on the banking, construction and allied industries and try to establish if there exist a relationship between voluntary disclosure and stock return. We will also increase our variables from the past four studied on to six including background of the company and intangible assets not included in the financials.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter presents a description of the research methodology and procedures employed to achieve the objectives of the study. The methodology refers to how the research was carried out and the logical flow. The chapter outlines the research design of the study, the target population, data collection methods and data analysis techniques.

#### 3.2 Research Design

Research design is a systematic plan to carry out a study. It involves the basis for collection, measurement and analysis of data used in achieving the objectives of a study. It involves hypothesis writing, operationalization and data analysis with aim of minimizing variances to achieve set objectives. Kothari (2004) refers to research design as the conceptual structure of conducting research and includes blueprint for collection, measurement and analysis of data.

Welman and Kruger (2001) defines the research design as the strategy or plan which is used to acquire participants or subjects, and how to collect what type of data from them, in order to arrive at conclusions about the initial research question. The study used descriptive research design in determining the relationship between voluntary disclosure and stock returns for the firms listed in the Nairobi Securities Exchange. Burns and Grove (2003) posits that descriptive research design is designed to provide

a display of an event as it occur and may be used to justify current practice, make decisions and in development of theories.

#### 3.3 Population

Population refers to the total collection of elements in a study. The population for this study consisted of the firms listed on the Nairobi Securities Exchange. There were 63 companies listed in the NSE as at 22 July 2014 (Appendix I).

#### 3.4 Sample

Sampling is concerned with the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population. Each observation measures one or more properties of observable bodies distinguished as independent objects or individuals. Sampling frame refers to a list of all units available for sampling. The elements in the frame should be a full representation of the population from which the sample was drawn. The sample frame is the companies listed in the NSE.

The sample was made up of the companies in the banking and construction and allied industries and the sample size was the 16 companies in the two industries out of a population of 63 listed firms in the NSE. This is mainly due to the fact that past researches have been on general industries with no focus on specific ones given that different industries react differently on the disclosure of different information to the market.

#### 3.5 Data Collection

According to Malhotra and Birks (2006) secondary data is information which has been collected and studied by other researchers for other purposes. The study will make us of secondary data from publically available information mainly published accounts of the listed companies. Secondary data is suitable for this study as it is advantageous in that it is less time consuming and less expensive as compared to primary data.

It is also verifiable easily hence efficient to meet our objectives. The disadvantage of the secondary data is the inappropriateness as it's collected to answer a different research question (Denscombe, 2007). The inappropriateness may be because the data was collected many years ago and hence outdated. In order to ensure that the data collected is appropriate we shall use audited financial statements of the listed companies for the last 5 years between 2008 and 2013.

Secondary data is the only source of data that can be used in the study. The study will look at the non-statutory disclosures which the management has made in their reports to the stakeholders. The disclosures we will look at will include business data-market share growth and new products information, analysis of the business data-trend analysis and competitors' comparisons, sales forecasts, expansion plans, management and shareholders information, products description and long term objectives. The stock returns was obtained from the annual dividends and share prices for the companies which were selected as the representative sample. The data analysis was on returns for the shares in each company in each year.

The voluntary disclosures was rated on a scale of 1-5 where 1 will represent low rating while 5 very high rating. The independent variables were the voluntary disclosures  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  and  $X_6$ .

# 3.6 Data Analysis

A regression analysis was conducted on the data to establish the relationship between voluntary disclosures and stock returns for companies listed in the NSE. The return on investment was the change in value of the investment and the dividends received from the investment (Return= Annual dividend+ Terminal Value of share (Price)).

The linear regression equation was as follows;

$$Ri = a + bx1 + b2x2 + b3x3 + b4x4 + b5x5 + b6x6 + \varepsilon i$$

$$R_i = (P_1 - P_{0}) + D$$

 $P_0$ 

Where:

Ri = Return on stock, a= Constant or y intercept, D= Dividends,  $P_0$ = Beginning stock price,  $P_1$ = Ending stock price

 $B_1$ = Beta coefficient of  $X_1$ ,  $b_2$ = Beta coefficient of  $X_2$ ,  $b_3$ = Beta coefficient of  $X_3$ ,  $b_4$ = Beta coefficient of  $X_4$ 

 $X_1$ = Variable business data,  $X_2$ =Variable Management analysis of business data,  $X_3$ =Variable forward looking information,  $X_4$ =Variable Information about management and shareholders,  $X_5$ =Variable background about the company,  $X_6$ =Variable intangible assets not recognized in the financials

 $\varepsilon$ i= Error term

Disclosure index

The disclosure index was constructed in terms of general and strategic data (business data), financial data, management and shareholders information, forward looking information, company background and intangible assets information. Scores was allocated for firms whose annual reports disclose the various categories of the voluntary disclosure. A scale of 1 to 5 was used where 5 was very high disclosure and 1 very low disclosure (Appendix II). We will carry out content analysis by evaluating the number of elements disclosed in each category of disclosures. The scores will then be converted into percentages.

We determined the coefficient of correlation (R<sup>2</sup>) and coefficient of determination (R) using Pearson Product Moment. Pearson Product Moment correlation coefficient (R) measures the strength and direction of the linear relationship between two variables (dependent and independent variable).

#### **CHAPTER FOUR**

# PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.1 Introduction

This chapter presents the results of the data analysis, findings and discussion of the study on the effect of voluntary disclosures on the stock returns of firms listed at the Nairobi Securities Exchange.

### **4.2 Response Rate**

The data has been analysed using the multi-linear regression analysis and presented in the form of percentages, means, standard deviation, correlation analysis and test of significance. The data of the study was obtained through content analysis of the annual reports of five years of the companies listed in the Nairobi Securities Exchange in the banking and construction and allied industries as at 31 December 2013.

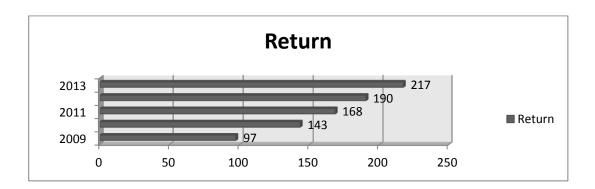
# **4.2 Descriptive Statistics**

The study sought to establish the variability of the data used for the analysis. The references included audited financial statements and reports from the targeted companies within the study period 2009-2013.

#### **4.3 Descriptive Statistics**

# 4.3.1 Stock Returns for the Year 2009 through 2013

Figure 4.1: Stock Returns for the Year 2009 through 2013



From figure 4.1 above, the firm's stock returns have been on a steady increase since 2009 with the voluntary disclosure on stock. The stock return has risen up to a sum of 217 in the 16 firms which were sampled. This is an indicator that the firms listed in the NSE have adopted voluntary disclosure to increase their firm's stock return. The table below shows the correlation coefficient of annual stock return in relation to the voluntary disclosure in the years 2009 to 2013.

Table 4.1: Correlation Coefficient of Stock Return to the Firms' Voluntary Disclosure

| No.     | Year. | Correlation Coefficient [R] |
|---------|-------|-----------------------------|
| 110.    | rear. | Annual Return.              |
| 1       | 2013  | 0.2647                      |
| 2       | 2012  | 0.5910                      |
| 3       | 2011  | 0.9845                      |
| 4       | 2010  | 0.3647                      |
| 5       | 2009  | 0.5509                      |
| Overall |       | 0.55116                     |

The table above shows the correlation coefficient of stock return in relation to the voluntary disclosure in the years 2009 to 2013. There is a positive correlation of annual stock return to the firm's voluntary disclosure. The year 2011 displayed the

highest level of correlation (R=0.9845) of stock return with the least correlation (R=0.2647) being reported in 2013

#### **4.4 Correlation Matrix**

**Table 4.2: Correlation Matrix** 

|        | BDT    | MABDT   | FLIF    | IMSH   | BACP   | INTANG | ROS    |
|--------|--------|---------|---------|--------|--------|--------|--------|
|        |        |         |         |        |        |        |        |
| BDT    | 1.0000 |         |         |        |        |        |        |
| MABDT  | 0.0523 | 1.0000  |         |        |        |        |        |
| FLIF   | 0.0382 | -0.0981 | 1.0000  |        |        |        |        |
| IMSH   | 0.1148 | 0.4765  | -0.0909 | 1.0000 |        |        |        |
| BACP   | 0.0737 | -0.0681 | -0.1545 | 0.2329 | 1.0000 |        |        |
| INTANG | 0.2032 | 0.4031  | 0.0911  | 0.1988 | 0.4137 | 1.0000 |        |
| ROS    | 0.0278 | 0.5194  | 0.0448  | 0.1661 | -0.288 | 0.0655 | 1.0000 |

Table 4.2 shows the correlation between return on stock, business data, management analysis of business data, forwarding looking information, information about management and shareholders, background about company and information about intangible assets presented in the correlation variance above. Each variable is perfectly correlated with itself as indicated by the coefficient of 1.

Variable business data has a positive correlation with return on stock (R=0.0278). Management analysis of business data has a positive correlation with return on stock (R=0.5194). Forward looking information is positively correlated with return on assets of the twenty listed companies (R=0.0448). Information about management and shareholders is positively related with return on assets (R=0.1661). Variable

background about the company has negative correlation with return on assets (R=0.288) while intangible assets not recognized in the financials is positively correlated with return on assets (R=0.0655)

# 4.5 Pooled Ordinary Least Square Regression Model

# 4.5.1 Analysis of Variance

Table 4.3 Analysis of Variance (ANOVA)

| Model      | Sum of Squares | df | Mean Squares | F    | Sig   |
|------------|----------------|----|--------------|------|-------|
| Regression | 0.010486499    | 7  | 0.001498071  | 7.48 | 0.000 |
| Residuals  | 0.006409927    | 4  | 0.00020031   |      |       |
| Totals     | 0.016896426    | 11 | 0.000433242  |      |       |

The study used ANOVA statistics to establish the significance of the relationship between stock return and the voluntary disclosure. The regression model is significant given the level of significance 0.033 (p = .000) which is below 0.05, therefore there is statistical significant difference between the means of the dependent and explanatory variables.

# 4.5.2 Model Fit

**Table 4.4: Goodness of Fit Statistic** 

| Model | R       | R Square | Adjusted R | Std. Error of | Durbin-       |
|-------|---------|----------|------------|---------------|---------------|
|       |         |          | Square     | the Estimate  | Watson        |
|       |         |          |            |               | Sig. F Change |
|       |         |          |            |               |               |
| 1     | 0.78778 | 0.6206   | 0.5376     | 0.01415       | 1.9601        |
|       |         |          |            |               |               |

Determination coefficients (R<sup>2</sup>) were also carried out to determine the strength of the relationship between independent and dependent variables. The study established R<sup>2</sup> of 0.6206. R<sup>2</sup> of 0.6206 indicates that 62.06% of the variation in stock return can be explained by the voluntary disclosures. The Durbin-Watson test statistic tests the null hypothesis that the residuals from an ordinary least-squares regression are not auto correlated. The Durbin-Watson statistic ranges in value from 0 to 4. A value near 2 indicates non-autocorrelation; a value toward 0 indicates positive autocorrelation; a value toward 4 indicates negative autocorrelation. Since the DW value of 1.9601 was close to 2, then it can be concluded that there was no auto-correlation among the model residual.

#### 4.5.3 Coefficients of the Model

Multiple regression analysis was used to determine the significance of the relationship between the dependent variable and all the independent variables pooled together. The results are given in the model summary in Table 4.5 below.

**Table 4.5: Regression Result** 

| ROS    | Coef.    | Std.Err  | t     | P> t  |
|--------|----------|----------|-------|-------|
| BDT    | 7.6807   | 7.13E-07 | 1.08  | 0.289 |
| MABDT  | -0.00355 | 0.002865 | -1.24 | 0.224 |
| FLIF   | 0.112246 | 0.04305  | 2.61  | 0.014 |
| IMSH   | -0.0008  | 0.00034  | -2.36 | 0.025 |
| BACP   | 0.120599 | 0.039991 | 3.02  | 0.005 |
| INTANG | 0.001388 | 0.000572 | 2.43  | 0.021 |
| _cons  | 0.125655 | 0.030884 | 4.07  | 0.000 |

From the regression result, the estimated model is given below:

 $Ri = 0.1256 + 7.6807x_1 - 0.00355x_2 + 0.112246x_3 - 0.0008x_4 + 0.120599x_5 + 0.001388x_6.$ 

At 5% level of significance all the variables are statistically significant in explaining the variation in stock return for the twenty listed firms in NSE under study.

#### 4.6 Summary and Discussion of the Findings

From the estimated regression model above, disclosure on business data is statistically significant in explaining the variation in stock return. At 5% level of significance, a unit increase in the disclosure of business data will result to 7.6807 unit increase in stock return. Managerial analysis of disclosed business negatively impacts on the stock return as a unit increase will lead to 0.00355 units decrease in stock return. Forward looking information has a positive relationship with stock return. A unit increase in forward looking information will lead to 0.1122 units increase in stock return.

Disclosure of information about management and shareholders will have a negative impact on stock returns. A unit increase in information about management and shareholders will lead to 0.0008 units decrease in stock return. Disclosure on the information about the background about the company positively influences stock return of the firms. A unit increase in the information on the background about the company will lead to 0.120599 units increase in stock return of firms listed in the NSE. Disclosure on the intangible assets not recognized in the financial statements has a positive effect on the stock returns. A unit increase in the disclosure of the information regarding intangible assets not recognized in the financial statements will lead to 0.001388 units increase in stock reruns of the firms listed in the NSE.

# **CHAPTER FIVE**

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the summary of the findings, conclusion, recommendations and suggestions for further research derived from the findings. The chapter also presents the limitations that were encountered with suggestions for further research.

#### **5.1 Summary of Findings**

The objective of the study was to establish the relationship between voluntary disclosures and stock returns of companies listed at the Nairobi Securities Exchange. To achieve this objective, 16 listed firms in Nairobi Stock Exchange were studied for the period 2009-2013. The study established that firm's stock returns have been on a steady increase since 2009 with the voluntary disclosure on stock. The stock return rose to a sum of 217 in the 16 firms which were sampled. This was an indicator that the firms listed in the NSE have adopted voluntary disclosure to increase their firm's stock return

The findings indicated that business data has a positive correlation with return on stock, management analysis of business data has a negative correlation with return on stock, forward looking information is positively correlated with return on stock of the twenty listed companies, information about management and shareholders is negatively related with return on stocks, variable background about the company has positive correlation with return on assets and information about intangible assets not recognized in the financials is positively correlated with return on stocks.

Disclosure on business data was found to be statistically significant in explaining the variation in stock return, a unit increase in the disclosure of business data will result to 7.6807 unit increases in stock return. Managerial analysis of disclosed business data negatively impacts on the stock return as a unit increase will lead to 0.00355 units decrease in stock return. Forward looking information has a positive relationship with stock return. A unit increase in forward looking information will lead to 0.1122 units increase in stock return. Disclosure of information about management and shareholders will have a negative impact on stock returns. A unit increase in information about management and shareholders will lead to 0.0008 units decrease in stock return.

Disclosure on the information about the background of the company positively influences stock return of the firms. A unit increase in the information on the background about the company will lead to 0.120599 units increase in stock return of firms listed in the NSE. Disclosure on the information about intangible assets not disclosed in the financial statements has a positive effect on the stock returns. A unit increase in the disclosure of the information about intangible assets not disclosed in the financial statements will lead to 0.001388 units increase in stock reruns of the firms listed in the NSE.

#### **5.2 Conclusion**

The study obtained from the model indicates that voluntary disclosure of firm's information has positive impact on stock return. Disclosure on business data, forward looking information, background about the company and information on intangible assets not disclosed in the financial statements positively impact on the firm's stock

returns. However, information on management analysis of business data and information about management and shareholders has negative implication on company's stock return.

#### 5.3 Recommendations

Based on the study findings, the study suggests that firms should disclose information's that will attract investors thereby increasing stock returns. A firm's market value is a function of investors' perceptions of its managers' ability to anticipate and respond to future changes in the firm's economic environment.

Managers with access to private information about the company can make reliable disclosure to the market thus optimising on the value of the firm. To reduce the conflict between agents and the principal in a firm, the managers should disclose favourable private information about the firm to the public influencing the decision of the investors.

#### **5.4 Limitations of the Study**

The following are some of the limitations of the study: Voluntary disclosure index is not the only factor that influences stock return and its determination is subjective. The disclosure ratings in established markets are not applicable in the Kenyan market as they do not exist. The rating of the disclosures may vary from one researcher to other thus obtaining varying results.

Other important factors such as stock split should be considered while assessing the level of stock return. Investors can only gain if there is an assurance that other factors in the economy will remain unchanged.

# **5.5 Suggestions for Further Research**

The researcher suggests the following areas for further research: The study focused on investigating the relationship between voluntary disclosures and stock returns of companies listed at the Nairobi Securities Exchange. Kenya is classified as a developing country and it shares similar climatic, weather and cultural conditions with the other East African countries, further research could be done by assessing correlation between stock return in the three East African countries and disclosure trends. Research could also be done to assess compliance levels to the Basel Committee resolutions in the subsequent financial reporting and risk management strategies.

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# **APPENDICES**

Appendix I: FASB classifications of voluntary disclosures

| Voluntary Disclosure              | Example  |
|-----------------------------------|--|
| Business data                     | High-level operating data and performance          |
|                                   | measurements that management uses to manage        |
|                                   | the business                                       |
| Management's analysis of          | Reasons for changes in the operating and           |
| business data                     | performance-related data, and the identity and     |
|                                   | past effect of key trends                          |
| Forward-looking information       | Opportunities and risks including those resulting  |
|                                   | from key trends; management's plans, including     |
|                                   | critical success factors; and comparison of actual |
|                                   | business performance to previously disclosed       |
|                                   | opportunities, risks, and management's plans       |
| Information about management      | Directors, management, compensation, major         |
| and shareholders                  | shareholders, and transactions and relationships   |
|                                   | among related parties                              |
| Background about the company      | Broad objectives and strategies, scope and         |
|                                   | description of business and properties, and        |
|                                   | impact of industry structure on the company        |
| Information about intangible      | Research and development and customer              |
| assets not been recognized in the | relations information                              |
| financial statements.             |  |

Source: Financials Accounting Standard Board Report 2001

Appendix II: Companies Listed in the Nairobi Securities Exchange

| AGRICULTURAL  | CONSTRUCTION & ALLIED  |
|---|--|
| Eaagads Ltd   | ARM Cement Ltd   |
| Kakuzi Ltd  | Bamburi Cement Ltd   |
| Kapchorua Tea Co. Ltd   | Crown Paints Kenya Ltd   |
| The Limuru Tea Co. Ltd  | E.A.Cables Ltd   |
| Rea Vipingo Plantations Ltd   | E.A.Portland Cement Co. Ltd  |
| Sasini Ltd  |  |
| Williamson Tea Kenya Ltd  | ENERGY & PETROLEUM   |
|   | KenGen Co. Ltd   |
| AUTOMOBILES & ACCESSORIES   | KenolKobil Ltd   |
| Car & General (K) Ltd   | Kenya Power & Lighting Co Ltd  |
| CMC Holdings Ltd  | Kenya Power & Lighting Ltd 4% Pref 20.00   |
| Marshalls (E.A.) Ltd  | Kenya Power & Lighting Ltd 7% Pref 20.00   |
| Sameer Africa Ltd   | Total Kenya Ltd  |
|   | Umeme Ltd  |
|   |  |
| BANKING   | INSURANCE  |
| Barclays Bank of Kenya Ltd  | British-American Investments Co.(Kenya) Ltd  |
| CFC Stanbic of Kenya Holdings Ltd   | CIC Insurance Group Ltd  |
| Diamond Trust Bank Kenya Ltd  | Jubilee Holdings Ltd   |
| Equity Bank Ltd   | Kenya Re Insurance Corporation Ltd   |
| Housing Finance Co.Kenya Ltd  | Liberty Kenya Holdings Ltd   |
| I&M Holdings Ltd  | Pan Africa Insurance Holdings Ltd  |
| Car & General (K) Ltd  CMC Holdings Ltd  Marshalls (E.A.) Ltd  Sameer Africa Ltd  BANKING  Barclays Bank of Kenya Ltd  CFC Stanbic of Kenya Holdings Ltd  Diamond Trust Bank Kenya Ltd  Equity Bank Ltd  Housing Finance Co.Kenya Ltd | Kenya Power & Lighting Co Ltd  Kenya Power & Lighting Ltd 4% Pref 20.00  Kenya Power & Lighting Ltd 7% Pref 20.00  Total Kenya Ltd  Umeme Ltd  INSURANCE  British-American Investments Co.(Kenya) Ltd  CIC Insurance Group Ltd  Jubilee Holdings Ltd  Kenya Re Insurance Corporation Ltd  Liberty Kenya Holdings Ltd |

| Kenya Commercial Bank Ltd          |                                    |
|------------------------------------|------------------------------------|
| National Bank of Kenya Ltd         | INVESTMENT                         |
| NIC Bank Ltd                       | Centum Investment Co Ltd           |
| Standard Chartered Bank Kenya Ltd  | Olympia Capital Holdings Ltd       |
| The Co-operative Bank of Kenya Ltd | Trans-Century Ltd                  |
| COMMERCIAL AND SERVICES            | MANUFACTURING & ALLIED             |
| Express Kenya Ltd                  | A.Baumann& Co Ltd                  |
| Hutchings Biemer Ltd               | B.O.C Kenya Ltd                    |
| Kenya Airways Ltd                  | British American Tobacco Kenya Ltd |
| Longhorn Kenya Ltd                 | Carbacid Investments Ltd           |
| Nation Media Group Ltd             | East African Breweries Ltd         |
| Scangroup Ltd                      | Eveready East Africa Ltd           |
| Standard Group Ltd                 | Kenya Orchards Ltd                 |
| TPS Eastern Africa Ltd             | Mumias Sugar Co. Ltd               |
| Uchumi Supermarket Ltd             | Unga Group Ltd                     |
|                                    |                                    |
| TELECOMMUNICATION &                | GROWTH ENTERPRISE MARKET           |
| TECHNOLOGY                         | SEGMENT (GEMS)                     |
| Safaricom Ltd                      | Home Afrika Ltd                    |
|                                    |                                    |

# **Appendix III: Voluntary Disclosure Score Card**

| Voluntary       | Example             | Very | High | Moderate | Low | Very |
|-----------------|---------------------|------|------|----------|-----|------|
| Disclosure      |                     | High | 4    | 3        | 2   | Low  |
|                 |                     | 5    |      |          |     | 1    |
| Business data   | High-level          |      |      |          |     |      |
|                 | operating data and  |      |      |          |     |      |
|                 | performance         |      |      |          |     |      |
|                 | measurements.       |      |      |          |     |      |
|                 | Market share        |      |      |          |     |      |
|                 | growth and          |      |      |          |     |      |
|                 | information on      |      |      |          |     |      |
|                 | new products.       |      |      |          |     |      |
| Management's    | Trend analysis and  |      |      |          |     |      |
| analysis of     | competitors         |      |      |          |     |      |
| business data   | analysis            |      |      |          |     |      |
| Forward-looking | Key trends on       |      |      |          |     |      |
| information     | management's        |      |      |          |     |      |
|                 | plans example       |      |      |          |     |      |
|                 | sales forecasts and |      |      |          |     |      |
|                 | expansion plans.    |      |      |          |     |      |
| Information     | Directors,          |      |      |          |     |      |
| about           | management,         |      |      |          |     |      |
| management and  | compensation,       |      |      |          |     |      |
| shareholders    | major               |      |      |          |     |      |
|                 | shareholders, and   |      |      |          |     |      |

|                  | transactions and   |  |  |  |
|------------------|--------------------|--|--|--|
|                  | relationships      |  |  |  |
|                  | among related      |  |  |  |
|                  | parties            |  |  |  |
| Background       | Objectives and     |  |  |  |
| about the        | strategies, scope  |  |  |  |
| company          | and description of |  |  |  |
|                  | business and       |  |  |  |
|                  | properties, and    |  |  |  |
|                  | impact of industry |  |  |  |
|                  | structure on the   |  |  |  |
|                  | company            |  |  |  |
| Information      | Research and       |  |  |  |
| about intangible | development and    |  |  |  |
| assets not       | customer relations |  |  |  |
| disclosed in     | information        |  |  |  |
| financial        |                    |  |  |  |
| statements       |                    |  |  |  |

Appendix IV: Voluntary Disclosures Index  $(\boldsymbol{X}_n)$  and Stock return  $\boldsymbol{Y}$ 

| Company        | Year | X1 | X2 | X3 | X4 | X5 | X6 | Y |
|----------------|------|----|----|----|----|----|----|---|
| Name           |      |    |    |    |    |    |    |   |
| Barclays Bank  | 2009 |    |    |    |    |    |    |   |
| of Kenya       | 2010 |    |    |    |    |    |    |   |
| Limited        | 2011 |    |    |    |    |    |    |   |
|                | 2012 |    |    |    |    |    |    |   |
|                | 2013 |    |    |    |    |    |    |   |
| CFC Stanbic of | 2009 |    |    |    |    |    |    |   |
| Kenya          | 2010 |    |    |    |    |    |    |   |
| Holdings       | 2011 |    |    |    |    |    |    |   |
| Limited        | 2012 |    |    |    |    |    |    |   |
|                | 2013 |    |    |    |    |    |    |   |
| Diamond Trust  | 2009 |    |    |    |    |    |    |   |
| Bank Kenya     | 2010 |    |    |    |    |    |    |   |
| Limited        | 2011 |    |    |    |    |    |    |   |
|                | 2012 |    |    |    |    |    |    |   |
|                | 2013 |    |    |    |    |    |    |   |
| Equity Bank    | 2009 |    |    |    |    |    |    |   |
| Limited        | 2010 |    |    |    |    |    |    |   |
|                | 2011 |    |    |    |    |    |    |   |
|                | 2012 |    |    |    |    |    |    |   |
|                | 2013 |    |    |    |    |    |    |   |
| Housing        | 2009 |    |    |    |    |    |    |   |

| Finance       | 2010 |  |          |   |          |          |          |
|---------------|------|--|----------|---|----------|----------|----------|
| Company       | 2011 |  |          |   |          |          |          |
| Kenya Limited | 2012 |  |          |   |          |          |          |
|               |      |  |          |   |          |          |          |
|               | 2013 |  |          |   |          |          |          |
| I&M Holdings  | 2009 |  |          |   |          |          |          |
| Limited       | 2010 |  |          |   |          |          |          |
|               | 2011 |  |          |   |          |          |          |
|               | 2012 |  |          |   |          |          |          |
|               | 2013 |  |          |   |          |          |          |
| Kenya         | 2009 |  |          |   |          |          |          |
| Commercial    | 2010 |  |          |   |          |          |          |
| Bank Limited  | 2011 |  |          |   |          |          |          |
|               | 2012 |  |          |   |          |          |          |
|               | 2013 |  |          |   |          |          |          |
| National Bank | 2009 |  |          |   |          |          |          |
| of Kenya      | 2010 |  |          |   |          |          |          |
| Limited       | 2011 |  |          |   |          |          |          |
|               | 2012 |  |          |   |          |          |          |
|               | 2013 |  |          |   |          |          |          |
| NIC Bank      | 2009 |  |          |   |          |          |          |
| Limited       | 2010 |  |          |   |          |          |          |
|               | 2011 |  |          |   |          |          |          |
|               | 2012 |  |          |   |          |          |          |
|               | 2013 |  |          |   |          |          |          |
|               | 1    |  | <u> </u> | l | <u> </u> | <u> </u> | <u> </u> |

| Standard       | 2009 |  |          |          |          |          |  |
|----------------|------|--|----------|----------|----------|----------|--|
| Chartered Bank | 2010 |  |          |          |          |          |  |
| Kenya Limited  | 2011 |  |          |          |          |          |  |
|                | 2012 |  |          |          |          |          |  |
|                |      |  |          |          |          |          |  |
|                | 2013 |  |          |          |          |          |  |
| The Co-        | 2009 |  |          |          |          |          |  |
| operative Bank | 2010 |  |          |          |          |          |  |
| of Kenya       | 2011 |  |          |          |          |          |  |
| Limited        | 2012 |  |          |          |          |          |  |
|                | 2013 |  |          |          |          |          |  |
| ARM Cement     | 2009 |  |          |          |          |          |  |
| Limited        | 2010 |  |          |          |          |          |  |
|                | 2011 |  |          |          |          |          |  |
|                | 2012 |  |          |          |          |          |  |
|                | 2013 |  |          |          |          |          |  |
| Bamburi        | 2009 |  |          |          |          |          |  |
| Cement Limited | 2010 |  |          |          |          |          |  |
|                | 2011 |  |          |          |          |          |  |
|                | 2012 |  |          |          |          |          |  |
|                | 2013 |  |          |          |          |          |  |
| Crown Paints   | 2009 |  |          |          |          |          |  |
| Kenya Limited  | 2010 |  |          |          |          |          |  |
|                | 2011 |  |          |          |          |          |  |
|                | 2012 |  |          |          |          |          |  |
|                |      |  | <u> </u> | <u> </u> | <u> </u> | <u> </u> |  |

|                | 2013 |  |  |  |  |
|----------------|------|--|--|--|--|
| E.A.Cables Ltd | 2009 |  |  |  |  |
|                | 2010 |  |  |  |  |
|                | 2011 |  |  |  |  |
|                | 2012 |  |  |  |  |
|                | 2013 |  |  |  |  |
| E.A.Portland   | 2009 |  |  |  |  |
| Cement Co. Ltd | 2010 |  |  |  |  |
|                | 2011 |  |  |  |  |
|                | 2012 |  |  |  |  |
|                | 2013 |  |  |  |  |